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ABSTRACT

This study determines the effect of the Instructional Development Institute (IDI) on the skills of a group of District of Columbia public school instruction personnel in the use of the systems approach to instructional development. The following null hypotheses were tested: (a) IDI participants will not show significant gains in developing initial skills in the use of the systems approach as measured by the IDI Pre-Post Inventory and (b) responses on the IDI Participants' Program Evaluation will not indicate that the systems approach has been utilized, that teams have continued to work together, that participants feel some sense of self-improvement due to IDI, nor that there has been a positive effect on the students of the participants. The following instruments were used to test the hypotheses and to assess the IDI Program: (a) IDI Pre-Post Assessment Inventory, which measured skills gained toward utilization of the systems approach; (b) Participants' Feedback Sheets, which provided insight to the participants' in-process ideas about IDI; and (c) IDI Participants' Program Evaluation, which was the main instrument for testing the second hypothesis. Results indicate a rejection of both hypotheses. Also, it is recommended that the followup course be continued, that a procedure for initial training in the systems approach be made available, and that a continuous followup evaluation be made of the effect of the IDI program on students. (PD)

PUBLIC SCHOOLS OF THE DISTRICT OF COLUMBIA

AN EVALUATION OF THE INSTRUCTIONAL DEVELOPMENT INSTITUTE (I. D. I.) PROGRAM

The Team

OFFICE OF PLANNING RESEARCH AND EVALUATION
DIVISION OF RESEARCH AND EVALUATION
AUGUST 1974

An Evaluation of the Instructional Development Institute (I.D.I.) Program For The School Year 1973-74

Prepared by
Office of Planning, Research and Evaluation
Division of Research and Evaluation
August 1974

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Waters, Faye	Powell Elem.

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Head, Lelia	C.E.A.
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Archer, Vivian	Walker-Jones Elem.
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Slyde, George	Woodson Senior High School
Stewart, Barry	Woodson Senior High School
Wilder, James	Woodson Senior High School

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SUMMARY

Title: The Instructional Development Institute (I.D.I.) Program

Date: Focus-school year 1973-74
Follow-up - Spring 1973

Target Population: Instructional Personnel of the Public Schools of the District of Columbia

Number Served: School year 1973-74 - 567
Spring 1973 - 214

Funding: Jointly - USOE Title III and D.C. Public Schools

Background and Rationale:

I.D.I. is a training program designed to provide initial skills and competencies in applying instructional systems principles to learning and teaching in local schools. The program was developed by the National Special Media Institutes Consortium under a contract with the U.S. Office of Education.

Description of The Program:

The program was basically set up in three phases. Phase one was known as the Pre-Institute phase which required prospective participants to:

1) Form a team

2) Identify a problem area

3) Select a team coordinator

4) Select a referee

5) Submit an application

6) Plan for post-institute sessions

7) Schedule substitutes

8) Have referee attend training

Phase two consisted of a forty-hour, five-day validated training session in systems concepts and developing skills in applying a systems approach to solving educational problems.

Phase three was considered the Post-Institute phase. During this phase certain activities were to be carried out by the school team(s), in their respective schools, which would lead to the implementation of their plan(s) for solving their specific instructional problem.

Assumptions:

1. Participants who completed a five-day I.D.I. workshop would gain initial skills towards the utilization of the systems approach in solving instructional problems.

2. Scores on the I.D.I. Pre-Post Inventory would show significant gains at the .05 level.

3. The I.D.I. Program would have a positive effect on those participating by encouraging the utilization of the systems approach, "team" effort, improved instruction, and thus would improve the learning of students.

Hypotheses:

The following null hypotheses were to be tested.

H_1: Participants in the five-day Instructional Development Institute will not show significant gains in developing initial skills in the use of the systems approach to solving instructional problems as measured by the I.D.I. Pre-Post Inventory.

H_2: Responses on the Instructional Development Institute Participants' Program Evaluation will not indicate: that the systems approach has been utilized; that teams have continued to work together; that participants feel some sense of self-improvement due to I.D.I.; nor that there has been a positive effect on the students of the participants.

Findings:

1. In their own ratings of skills and knowledges gained, participants said they had gained initial skills enabling them to use the systems approach "To a great extent."

2. A comparison of pre-post tests given during the five-day Institutes revealed significant gains in skills and knowledge at the statistical .01 level of confidence.

3. Responses indicated that the I.D.I. experiences had some effect on human relations in the schools and on the school's staff development activities.

4. Responses also revealed that some impact was made on students in grade levels ranging from kindergarten through twelfth grade.

5. Participants indicated that they were using more media in their instructional strategies as a result of their I.D.I. experiences.

6. Seventy-three percent of those responding said that they have used the skills acquired in the development of their instructional program.

7. Participants listed other personal and professional benefits, such as, the awareness of the importance of working as a "team" to solve instructional problems, the acquisition of positive attitudes, the importance of media and evaluation, and improved competencies.

Recommendations:

1. It is recommended that the follow-up course, Education 663F, be continued.

   All of the schools desiring to send a team to the Instructional Development Institute (Education 662F) were given the opportunity. The need now is for a continuous follow-up to aid these teams in the total completion of the final step in the program, mainly implement/recycle. To this end it is recommended that the follow-up course, Education 663F "Building An Instructional Prototype Model Using The Instructional Development System" be continued.

2. It is recommended that the Office of Staff Development establish a procedure whereby initial training in the systems approach can be given as the need arises.

   In the District of Columbia Public School System there continues to be a certain amount of mobility among school staff. This is due to several reasons among which are transfers (either voluntarily, or as a result of the system's equalization plan), retirements and/or promotions. In many instances this has caused I.D.I. teams to lose members. Since the systems approach is based on a "team" effort it is recommended that the Office of Staff Development have periodic Institutes to train additional team members.

3. It is also recommended that a continuous follow-up evaluation be made of the effect of the Instructional Development Institute Program on students.

Many staff development efforts end with the instructional personnel, that is, without causing any positive changes in the "students" for whom the schools are all about. The follow-up evaluation of I.D.I. should assess its effect on students' behaviors, attitudes and achievement.

INTRODUCTION

This report represents an assessment of The Instructional Development Institute (I.D.I.) Program as implemented in the District of Columbia Public Schools focusing on the school year 1973-74.

Background and Rationale

An Instructional Development Institute is a training program designed to provide initial skills and competencies in applying instructional systems principles to learning and teaching in a local school, or school district. Instructional development may be defined simply as a systematic way of analyzing curriculum and instructional problems and of developing validated practical solutions. This program was developed by the National Special Media Institutes Consortium under a contract with the U.S. Office of Education, Bureau of Libraries and Educational Technology and more recently by the National Center for Educational Technology. Four universities comprised the National Special Media Institutes Consortium: Michigan State University, Syracuse University, the United States International University, and the University of Southern California. In 1972, Indiana University joined the Consortium and it became known as the University Consortium for Instructional Development and Technology.

The basic purpose of the I.D.I. Program is to assist school systems with limited resources, substantial numbers of academically or culturally deprived students and a real desire and commitment, to find innovative and effective solutions to consequent learning and instructional problems. To this end it proposes to provide participants with initial skills and competencies in instructional development procedures. Effective training allows participating teams to identify a specific instructional problem and to develop their own plans for solving this problem using a systematic and team approach.

Purpose of Study

The purpose of this study was to determine the effect of The Instructional Development Institute (I.D.I.), on the skills and competencies of a group of District of Columbia public school instructional personnel in the use of the systems approach to instructional development for school year 1973-74.

Description of The Program

The Instructional Development Institute (I.D.I.) Program has been a major staff development thrust in the D.C. Public Schools since the spring of 1973, supported through matched funding by the D.C. Public Schools and U.S. Office of Education E.P.D.A. and Title III grants. The program was recognized as an official staff development activity of the school system and received full support and approval from the D.C. Board of Education and the Washington Teachers Union. In implementing the program a new three semester hour graduate in-service and off-campus course, Education 662 F, "A Systems Approach to Instructional Development," was included in the curriculum at the District of Columbia Teachers College.

The program was basically set up in three phases. Phase one was known as the Pre-Institute phase. At this time interested schools were required to complete (not necessarily in the order listed) the following functions:

1. Form a team
2. Identify a problem area
3. Select a team coordinator
4. Select a Referee
5. Submit an application
6. Plan post-institute sessions
7. Schedule substitutes
8. Have the referee attend training (approx. 1 day)

The second phase was the Institute — a five day, forty hour, validated training session in systems concepts and developing skills in applying a systems approach. At the end of five days, the participating teams will have identified a specific instructional problem and developed a feasible plan for implementation in their schools utilizing systems techniques and strategies. The Institute was divided into instructional units consisting of large and small group activities including discussions and such innovative instructional strategies as role-playing, simulations and games while stressing the "team" approach.

The third phase was considered the Post-Institute phase. During this phase certain activities were to be carried out by the teams in their respective schools. These activities include team meetings, involvement of school staff, completion of prototypes, completion of evaluation designs, meetings with the follow-up coordinator and implementation of plans in classroom situations as appropriate. As a part of this phase a follow-up course: Education 663 F, "Building An Instructional Prototype Model Using the I.D. (Instructional Development)System" was conducted by the I.D.I. staff.

There were no staff hired especially for the I.D.I. Program. The staff instead was composed of trained personnel from within the various offices of the D.C. Public School's administration. Similarly,

the instructors were also chosen from the ranks and trained in the systems approach. Two consultants from the consortium were present in all except the last few workshops. Prior to the beginning of the I.D.I. program implementation, a steering committee was set up to develop policies for implementing the program. The steering committee met periodically throughout the program to evaluate and promote the development of the program. Another innovation on the part of the program (1973-74) was the inclusion of a media specialist component. Students from one of the senior high schools were included in the program. These students were trained in media technology and operated with percision all the media equipment during each Institute.

Ideally participants in each workshop were individual school teams consisting of the principal or the assistant principal, two teachers, the librarian and the school based resource teacher or specialist. An exception was Institute IV which tended to train personnel in Central Administration in the systems approach. This was to enable them to understand the concept and what it was all about when visiting the schools and observing I.D.I. teams. After soliciting volunteers from Central Administration space was left in Institute IV for four school teams.

In an evaluation of Institutes I through IV held in the spring of 1973, it was found the participants in the Instructional Development Program had significant positive gains in attitudes toward utilization of the systems approach to instructional development. 1/

Definitions

Feedback - In this study, a process built into the program whereby the participants expressed their feelings about the Institute's weaknesses and strengths to aid the I.D.I. staff in making improvements.

Follow-Up - On site visits (as well as other contacts) made to each school by I.D.I. staff to aid, promote and/or appraise the implementation of team plans. Also the inclusion of course 665 F to give additional training.

Media Specialist - High school students trained in media technology during pre-institute sessions for the purpose of conducting the audio-video segments of the Institute.

1/ Wood, Johanna S., An Analysis of the Effect of the Instructional Development Institute Program on Attitudes of a Selected Group of Public School Personnel, Published doctoral dissertation, (College Park, Maryland: University of Maryland, 1973)

Definitions (cont.)

Prototype - A plan or model for solving an instructional problem constructed by a school team.

Referee - One member chosen by a school team to attend a one day pre-institute training session in order to be prepared to facilitate the innovation interaction game during the Institute.

System - The collection of integrated entities working independently and in interaction for the purpose of locating, defining and achieving a predetermined purpose. (See appendix D)

Team - A group of five persons designated by a school to attend the five-day institute and composed of a principal, two teachers, one librarian and one other school based person. (Usually a reading specialist, math specialist, resource teacher, counselor, supervisor or physical education teacher)

Team Coordinator - A person chosen by a school team to be the spokesman or contact person between the school and the I.D.I. staff.

Limitations

1) Sample Size - Participants' Program Evaluation Forms were mailed to the 476 participants of Institutes I through X only. Responses are based on a 32% return which could possibly be those who feel more favorable towards the program.

2) Team Responses - Responses from individual teams to the Participants' Program Evaluation form ranged from response from one member to responses from all five team members. Thus majority opinions from team members reporting were taken as the team opinion. Sixty-five percent of the total 81 teams are represented.

3) Effect on Pupils - The effect the program had on students is limited to participants' responses on the Participants' Program Evaluation form and from reports of the I.D.I. follow-up personnel.

4) Non-Team Participants - Personnel from central administration attended some institutes. Even though they worked as part of a team during the institute they were not part of a permanent team that was able to complete a full program. This was especially true of Institute IV. Thus team responses and responses by profession as given in the results may not be comparable. Also included were personnel from other school systems.

5) Complete descriptive evaluation reports were not received from I.D.I. Instructional leaders and coordinators as outlined in the evaluation strategy.

6) The I.D.I. Pre-Post Inventory was not completed in time to be administered to participants of the Institutes prior to Institute X.

7) The Participants' Feedback Sheet was not constructed in time to be administered to participants of the Institutes prior to Institute VIII.

8) The I.D.I. Participants' Program Evaluation was limited to participants of Institutes I through X.

PROCEDURE

Sample

The opportunity to participate in the Instructional Development Institute was provided to all schools of the Washington D.C. Public School System on a first come basis. No school, however, was allowed to send a second team until all schools applying had been scheduled. After all schools applying were served, some schools were able to send second and even third teams to the Institute (See Appendix G). A total of sixteen (XVI) Institutes were held from the spring of 1973 through the spring of 1974. Each Institute was designed to accommodate fifty participants in ten five-member teams from ten different schools. This number was not always adhered to for several reasons. There were occasions wherein a team may have cancelled out too late to be replaced and at some institutes there were persons observing or participating without credits. These included persons from other school systems and from within the D.C. System, as well as parent aides in a few instances. (See Table I)

In all, approximately 781 school instructional personnel attended the sixteen five-day Institutes. These participants represented 76 elementary schools, 22 junior high schools, 8 senior high schools, 2 special education schools and one vocational high school for a total of 109 D.C. Schools served. (See Appendix G)

Treatment

In applying for participation in the I.D.I. Program, schools identified their five-member teams, designated the team coordinator and team referee, and listed their problem area. During registration (1973-74) for the five-day Institute, usually the week prior to the beginning of the Institute, staff members helped teams to clarify and/or be more specific as to their major problem. The referees attended two-half day sessions after registration and prior to the Institute to acquaint themselves with materials and techniques needed to facilitate some of the activities designed for their teams during the first two days of the institute. The Institute week was designed (participants' feedback, etc. initiated minor changes) to proceed as follows:

Unit I- The Context of Insturctional Development: Affective Preparation for Psychological Commitment to I.D.I.

This unit was composed of a series of introductory presentations and small group discussions of several basic educational problem ar-

Table I

Participants In The Instructional Development Institute Program

Institute Number	Participants			
	In Attendance	Registered For Credit 1/	Number who Withdrew 1/	From Out of State 1/
I	54			
II	53			
III	54			
IV	53			
V	36	35		
VI	50	46		3
VII	50	48	1	1
VIII	40	40	1	
IX	51	51	1	
X	35	35		
XI	48	45		
XII	50	50		
XIII	48	47	1	
XIV	51	51	3	
XV	58	57	2	1
XVI	52	50		
Total	781	555	11	4

1/ Not available for Institutes I through IV.

proaches based on widely-held professional values. The unit was designed to focus interest and secure continued involvement in the Instructional Development Institute.

Activities

1) Introduction to the I.D.I.
   a. Introductory Film and Slide Tape: Bridge #1, The Dawn
   b. Introductions
   c. Films: The Evolution of Education; A Square Education
2) Puzzles
   a. Puzzle Directions
   b. Puzzle Game
   c. Puzzle Game Debriefing
3) Film Presentations with Small Group Discussion
   a. Film: From Teaching to Learning
   b. Film: The Principal
   c. Film: Who is Miss Brett?
   d. Film: Visual Literacy
   e. Film: Introduction To A Technological Innovation
4) Interest Inventory

Unit II -- Introduction to the Systems Approach: The Instructional Development Process (See Appendix D)

Participants received, in this unit, an introduction to the systematic approach and definitions of basic terms. The Instructional Development process was compared with typical problem-solving approaches through the use of filmed segments from representative case studies.

Activities

1) Introduction to the Systems Approach
   a. Slide-Tape: Bridge #2, The Light of Day
   b. Slide-Tape: Introduction to the Systems Approach
   c. Team Review Exercise
2) The Instructional Development Process
   a. Slide-Tape: Introduction to the Instructional Development Process
   b. Game: The Instructional Development System Game
   c. Game Scoring
   d. Game Debriefing

3) Funny Money
   a. Film: Funny Money, Part 1
   b. Assignment to Discussion Groups; Small Group Discussion
   c. Discussion Summary Reports
   d. Film: Funny Money, Part 2
4) A Concept of Change
   a. Slide-Tape: A Concept of Change
   b. Assignment to Discussion Groups
   c. Small Group Discussion
   d. Discussion Summary Reports
5) Review: Post-test

Unit III -- The Application of General Systems Theory to Instructional Development

In this unit, the first three functions of the Instructional Development Model were explained: Define the Problem; Analyze the Setting; and Organize management. Roleplaying, simulation and gaming techniques were used to elicit from participants an initial commitment to systematic analysis as a problem-solving strategy.

Activities

1) Introduction to the Innovation Interaction Game
   a. Slide-Tape: Introduction to the Innovation Interaction Game
   b. Assignment of Game Roles
2) Game: The Innovation Interaction Game
   a. Slide-Tape: Bridge #3, The Gathering Storm
   b. Slide-Tape: Introduction to the Innovation Interaction Game
   c. Role Meetings for Game Participants
   d. Game: Round 1, Innovation Interaction Game
   e. Referee Critiques
   f. Programmed Instruction: In Manual, "Application of General Systems Theory to Instructional Development," Part 1
   g. Referee Reports of Scores
   h. Film: Identify Problem
   i. Game: Round 2, Innovation Interaction Game
   j. Referee Critiques
   k. Programmed Instruction: In Manual, "Application of General Systems Theory to Instructional Development," Part 2
   l. Film: Analyze Setting
   m. Programmed Instruction: In Manual, "Application of General Systems Theory to Instructional Development," Parts 3-4
   n. Film: Organize Management
   o. Game Summary

3) Case Study of Norwalk-LaMirada
   a. Introduction to Norwalk-LaMirada
   b. Slide Tape: Norwalk-LaMirada

Unit IV -- The Prototype Specifications Planning Exercise: Stage 1 - Define; Stage 2 - Develop

Units IV-VI built upon previous units and assisted participants to analyze problems, establish objectives, specify methods, and construct prototypes. The planning exercise was supported by slide-tape presentations, programmed materials, and simulation and gaming activities.

Activities

1) The Planning Exercise, Functions 1-3
   a. TABS Team Formation
   b. Slide-Tape: Bridge #4, Order Out of Chaos
   c. Slide-Tape: Function 1
   d. Prototype Specifications Manual, Function 1
   e. Slide-Tape: Function 2
   f. Prototype Specifications Manual, Function 2
   g. Slide-Tape: Function 3
   h. Prototype Specifications Manual, Function 3

Unit V -- The Prototype Specifications Planning Exercise: Stage 1 - Define; Stage 2 - Develop

Activities

1) Self-Instructional Objectives Package
   a. Slide-Tape: Bridge #5, The Gathering of Strength
   b. Self-Instructional Objectives Package
   c. Performance Objectives Self-Assessment
2) Game: The Objectives Marketplace Game
   a. Slide-Tape: Introduction to Objectives Marketplace Game
   b. Explanation of IAC
   c. Formation of companies
   d. Reading of roles
   e. Review of Game Rules
   f. Game: Part 1 - First Quarter
   g. Game: Part 2 - Second Quarter
   h. Game Feedback Session
   i. Game: Part 3 - Third Quarter
   j. Game: Part 4 - Fourth Quarter
   k. End-of-year Company Reports
   l. Debriefing Session
3) The Planning Exercise, Function 4
   a. Reform TABS Teams
   b. Slide-Tape: Function 4
   c. Prototype Specifications Manual, Function 4

Unit VI -- Specification of Methods: The Prototype Specifications Planning Exercise: Stage 1 - Define; Stage 2 - Develop

Activities

1) Strategies and Media, Function 5
   a. Slide-Tape: Prototype Specifications Exercise, Function 5, Part 1
   b. Strategies and Media Manual, Steps 1-4
   c. Slide-Tape: Prototype Specifications Exercise, Function 5, Part 2
   d. Strategies and Media Manual, Step 5
   e. Strategies and Media Post-Test
   f. Slide-Tape: Prototype Specifications Exercise, Function 5, Part 3

Unit VII -- Evaluation and Implementation: The Prototype Specifications Planning Exercise: Stage 3 - Evaluate

Activities

1) Evaluation for Instructional Development
   a. Slide-Tape: Prototype Specifications Exercise, Function 6
   b. Review of Manual, "Evaluation for Instructional Development"
   c. Slide-Tape: Evaluation for Instructional Development
   d. Post-test on Evaluation
2) Planning Exercise, Functions 6-9
   a. Prototype Specifications Manual, Function 6, Points M-R
   b. Slide-Tape: Bridge #6, Proof of Performance
   c. Slide-Tape: Prototype Specifications Exercise, Function 7
   d. Prototype Specifications Manual, Function 7, Points S-U
   e. Slide-Tape: Prototype Specifications Exercise, Functions 8-9
   f. Prototype Specifications Manual, Functions 8-9, Points V-X
   g. Slide-Tape: Bridge #7, The Days Beyond
3) Prototype Specifications Manual, "What's Next?"
4) Attitudes Survey, "Attitude Toward Instructional Development"
5) Synthesis of the Instructional Development Institute
   a. Film: Synthesis
   b. Slide-Tape: Synthesis

The completion of Unit VII ended the five-day session. The final part of the program - Unit VIII - required the participants (individual teams) to return to their respective schools, complete their plans (prototypes) for solving their instructional problem and implement plans in a classroom setting as appropriate. During this period follow-up was made by the I.D.I. follow-up team in order to assist teams needing help and to assess the teams' progress. The follow-up procedure usually consisted of:

1) Telephone contact (within three to five weeks)
2) Site visits (within eight to twelve weeks)
3) Evaluation of teams (within sixteen weeks)
4) Observations in classrooms.

Assumptions

On the basis of the treatment just described, the following assumptions were made:

1) Participants who completed a five-day I.D.I. workshop would gain initial skills towards the utilization of the systems approach in solving instructional problems.

2) Scores on the I.D.I. Pre-Post Inventory would show significant gains at the .05 level.

3) The I.D.I. Program would have a positive effect on those participating by encouraging the utilization of the systems approach, "team" effort, improved instruction, and thus would improve the learning of students.

Hypotheses

The following null hypotheses will be tested.

H_1: Participants in the five-day Instructional Development Institute will not show significant gains in developing initial skills in the use of the systems approach to solving instructional problems as measured by the I.D.I. Pre-Post Inventory.

H_2: Responses on the Instructional Development Institute Participants' Program Evaluation will not indicate that the systems approach has been utilized; that teams have continued to work together; that participants feel some sense of self-improvement due to I.D.I.; nor that there has been a positive effect on the students of the participants.

Instrumentation

To test the hypotheses and for further assessment of the Instructional Development Program, three instruments were developed by the Division of Research and Evaluation.

1) I.D.I. Pre-Post Inventory:

To measure skills gained toward utilization of the systems approach to instructional development, a ten-item multiple choice inventory, namely, the I.D.I. Pre-Post Inventory, was constructed. The ten items, covering the entire five days, were selected from three existing measures developed and validated by the Consortium and designed to be administered at three different intervals during the Institute. In addition to the multiple choice items, the first page of the Pre-Post inventory consisted of a listing of the nine functions or steps in the systems approach. The participants were asked to rate (on a scale from "little or no" knowledge to "a good" working knowledge) their skill or knowledge of each step.

2) Participants' Feedback Sheet:

This instrument was designed by the evaluators in an effort to provide some formative evaluation and support to the I.D.I. staff as well as give background for summative evaluation work. This form provided insight to the participants' in-process ideas about I.D.I.

3) Instructional Development Institute Participants' Program Evaluation:

This instrument was constructed as the main instrument to test the second null hypothesis The program evaluation instrument was a six page form designed to cover all aspects of the Instructional Development Institute Program i.e. the Pre-Institute, the Institute, and the Post-Institute (including the effects of the program on students). Opinions and comments were solicited from participants of Institutes I through X.

Analysis of Data

1) Differences in responses on the pre-post instrument were analyzed for Institutes X through XVI. Group means were found for participants' ratings of their knowledge of each of the nine steps basic to the systems approach. Pre and post means were displayed in graphic form enabling differences to be easily distinguishable. Scores were obtained on the multiple choice items. Means were computed. A t-test was applied to test for significant differences.

2) Individual comments on each feedback sheet were tallied by Institute according to the idea expressed, and then categorized by (1) Positive response, (2) Neutral response and (3) Negative response. This categorization was done in order to determine the participants' feelings toward the different phases of the program. Comments were also clustered within the general topics of content, materials, organization, attitude and environment. These results were presented in tabular and narrative form.

3) Responses to the Instructional Development Institute Participants' Program Evaluation were tallied for each Institute by team, professional position and/or individual responses. These were clustered for Institutes I through IV (Spring '73) and for Institutes V through X (school year 1973-74). In instances where there were no apparent differences in responses they were clustered for Institute I through X. The results were reported in tables, figures and in narrative form.

RESULTS AND DISCUSSION

Pre-Post Inventory

Beginning with the participants of Institute X the Pre-Post Inventory was administered at two intervals. The pretest was administered on the day of registration, which was held approximately one week prior to the beginning of the five-day Institute. Those participants who did not register at this time did not receive a pretest. The posttest was administered at the end of the last day of the Institute. Some participants with prior commitments who departed early, did not complete the posttest. The total number in each Institute completing each test is shown in Table II.

Part I of the Inventory gave participants the opportunity to rate themselves as to their knowledge or skill of the systems approach by rating each of the nine steps (functions) basic to the systems approach to solving problems. The rating was on a four point scale ranging from a "good" working knowledge to "little or no" knowledge. The pretest and posttest scores of subjects were obtained by assigning the responses a value ranging from 3 to 0 respectively for each step rated. Group means were computed for each step for participants of each Institute, X through XVI, on the pretest and on the posttest. The steps rated were: a) Identify a problem, b) Analyze the setting, c) Organize management, d) Identify objectives, e) Specify methods, f) Construct prototypes, g) Test prototypes, h) Analyze results, and i) Implement/Recycle. The results are shown in Figure 1.

For each Institute the ratings on the posttest were higher than those on the pretest. Since these ratings were based on opinions, no statistical test of the differences was applied.

Part II, consisting of the ten multiple choice items, was designed to measure the degree to which initial skills in the utilization of the systems approach to instructional development were gained as a result of the five-day Institute. In scoring, one point was given for each correct response. A cumulative score was obtained from which a group mean was computed for the pretest and the posttest. A t-test for unmatched data was applied to test for significance of the difference.

Table II, on the following page, gives the scores of Part II of the Pre-Post Inventory, for each institute, X through XVI. It also shows the cumulative scores for each, the number of participants in each Institute who completed each test, the mean scores for the group,

Table II

A Comparison of Pre-Post Inventory Scores of Participants In Institutes X Through XVI Including Mean Differences And t-Values

Scores	Number of Participants Obtaining A Particular Score													
	Institute X		Institute XI		Institute XII		Institute XIII		Institute XIV		Institute XV		Institute XVI	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
0	5		4		4		4		6		14		4	
1	4		4		6		5		3	2	6		4	
2	9		5	1	2		5	2	5	1	6	2	9	1
3	1		7	1	6		6		9	6	3	2	8	1
4	4	2	2	4	3	2	6	4	8	3	2	10	5	5
5	4	3	2	6	5	3	3	7	4	8	1	5	6	4
6	2	9	1	8	3	9	1	11	2	4	2	6		12
7		10	1	11	4	10		7	3	8		8	1	10
8		6		7	1	11		9		8		7		9
9		3		5		6		5		7		8		3
10		1				2		1				2		
Cumulative Score	73	232	66	277	119	309	78	297	125	281	52	315	103	286
Number of Participants	39	34	26	43	34	43	30	46	40	47	34	50	37	45
Mean	1.9	6.8	2.5	6.4	3.5	7.2	2.6	6.5	3.1	5.9	1.5	6.3	2.8	6.4
Mean Difference	4.3		3.9		3.7		3.9		2.8		4.8		3.6	
t-Value	10.36		8.86		8.33		9.39		5.97		10.67		9.78	

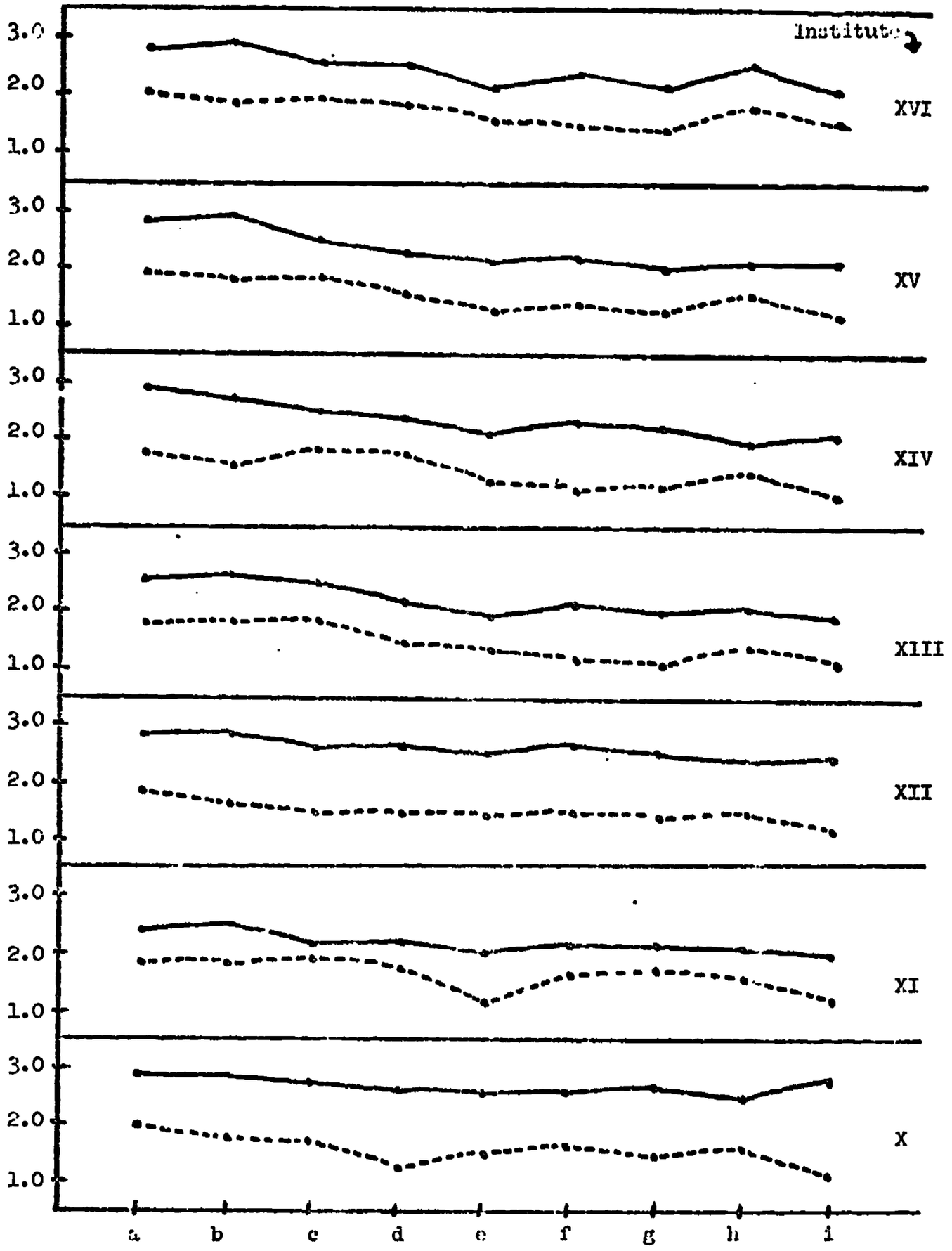


Figure 1
Participants' Pre-Post Ratings of Their Skills and Knowledges of The Nine Steps of the Systems Approach

Key:
Pre ----
Post ——

the mean difference between pretests and posttests and the obtained t-values. In all cases the t-value was significant at the .01 level of confidence.

To insure validity to the findings, since the Pre-Post Inventory was not used until Institute X, and also to control for selection, (participation was voluntary) history, masturation, and regression, a further analysis of the data in Table II was necessary. This analysis consisted of comparing the posttests of Institutes X through XIII with the pretests of Institutes XI through XIV respectively. This is known as the "Patched-Up" design in that it combines the one-group pretest-posttest design and the intact-group comparison.2/

Table III gives the results of the further analysis of the Pre-Post Inventory Scores.

Table III

A Comparison of The Posttest Means
of Institutes X Through XIII With The Pretest Means
of Institutes XI through XIV Respectively

Institutes	X	XI	XII	XIII	XIV
Tests	Post	Pre	Post	Pre	Post	Pre	Post	Pre
Mean	6.5	6.8	6.4	3.5	7.2	2.6	6.5	3.1
Mean Differ.	-.3		2.9		4.6		3.4	
t-values	10.39		9.20		12.40		8.10	

The obtained t-values for each of the comparisons was significant at the .01 level of confidence. The comparisons are reasonably equal to the results shown in Table II. Therefore, we can conclude that neither history, maturation, testing, nor selection can be considered to account for the outcome.

2/ Tuckman, Bruce W. "Constructing Research Designs." Conducting Educational Research. New York: Harcourt Brace Jovanovich, Inc., 1972, p.122.

Participants' Feedback Sheet

In an effort to provide some formative evaluation, support and background for more valid summative work, as well as learn the participants' in-process ideas about IDI, a system for gaining feedback from the participants was developed.

The form, Participants' Feedback Sheet, was designed to accomplish this. This was done in such a way that the responses would not be limited nor controlled. The form was given an unobtrusive structure to serve as a stimulus for the respondents' ideas. (See Appendix B)

The Feedback Sheets proved beneficial in several ways: For the participants, it served as a release-valve where they could express any strong feelings they might have had. It also gave them a mechanism for attempting to change the institute; thus, they could feel that they were a part of the total process, and not just the subjects of it.

The benefits were perhaps most apparent to the IDI staff. They read the Feedback Sheets at the end of each day, and used this information to correct the situations brought to their attention. For example, one respondent said:

> "Instructors are becoming more human. At first they were doing more reading and pushing time than getting involved with the different teams."

Alerted to this need, the instructors did begin to work more personally with the participants. Also useful to the staff were the informal analyses of the feedback sheets provided by this evaluation team at the end of each institute. The analyses alerted the staff to the trends in the data and gave them a means for looking at the institute from the participant's point of view; the last benefit will come with the receipt of this report and its findings.

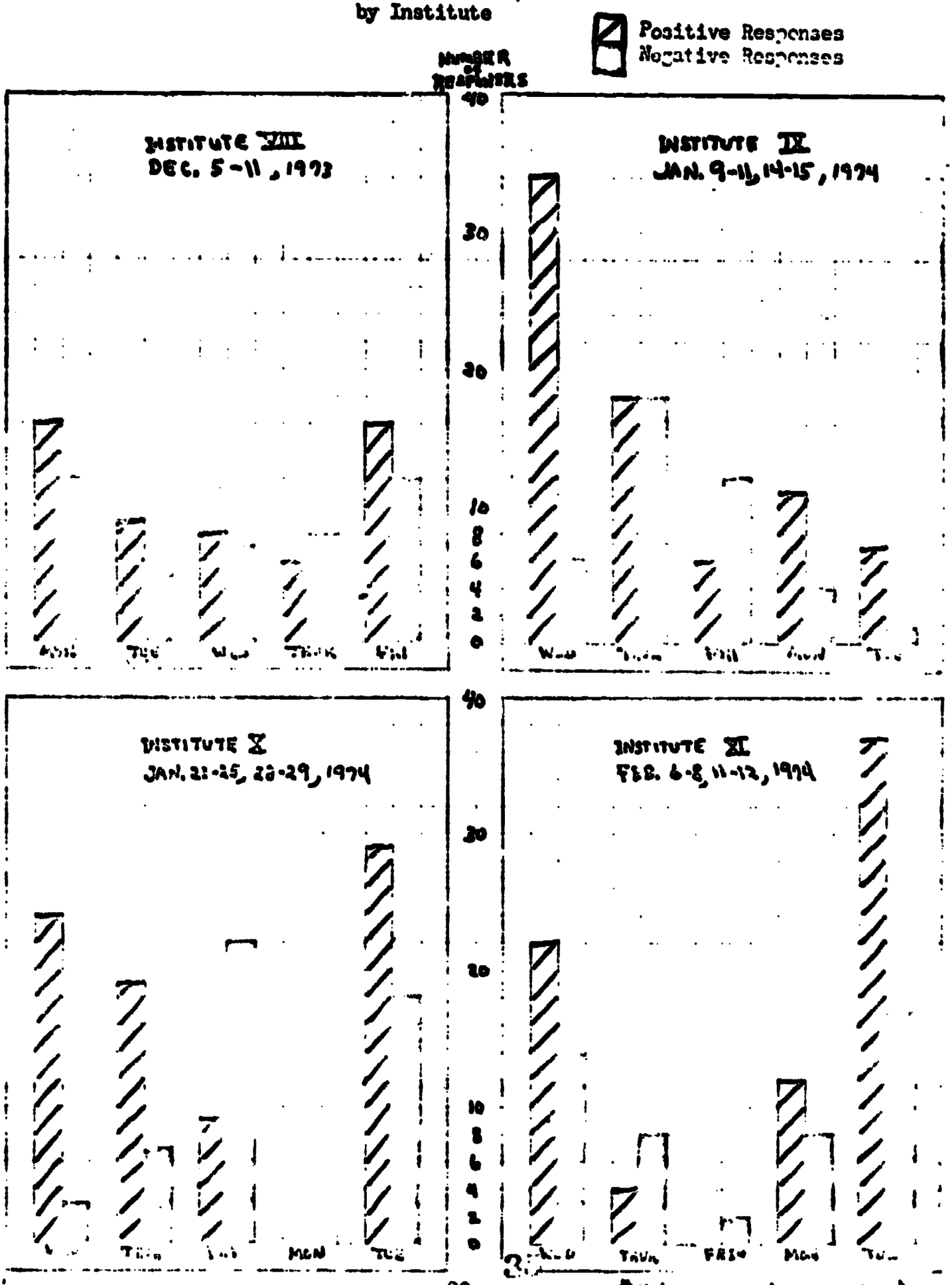
The earliest possible institutes, VIII, IX, X, and XI, were chosen in order to return the Formative Evaluation findings to the IDI staff prior to this Spring's institutes.

In order to analyze the data, the individual comments on each feedback sheet were tallied according to the idea expressed, and these were categorized by (1) Positive response (2) Neutral response and (3) Negative response. This categorization provided an index to the participants' affect each day during the institute. (See Figure 3)

Figure 2

Summary of Positive and Negative Responses

by Institute



* Major snow storm - early release

Of the four sample institutes, three (IX, X, and XI) began on a Wednesday and one (VIII) began on Monday. Utilizing this slight variation, a study was made to see if beginning on a Monday or a Wednesday made any difference in the attitudes expressed by the participants. Any findings could not be taken as conclusive because of the small number of institutes investigated, but might warrant further investigation.

The responses from the four institutes were combined then ranked by frequency according to (1) the institute day of the week--Day 1 through Day 5--and (2) the calenday day of the week--Monday through Friday. The following patterns were revealed:

-•-•- positive responses
——— negative responses

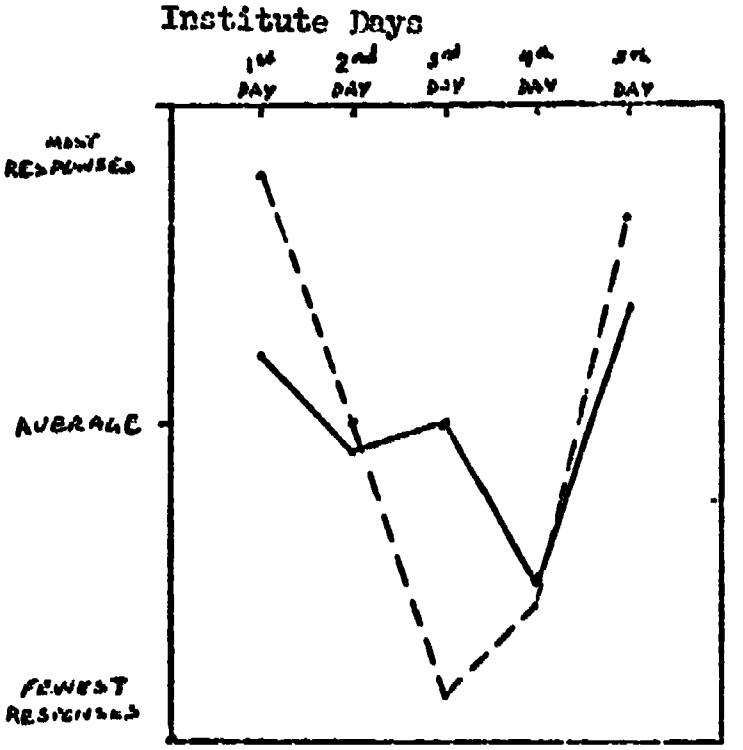


Figure 3

Responses by Institute Days

It appears that participants are more prone towards expressing their positive and negative feelings towards the I.D.I. experience at the beginning and again at the end of the institute. In terms of program content, the proportion of negative comments most outweighs the proportion of positive comments on the third day of the experience.

positive responses
negative responses

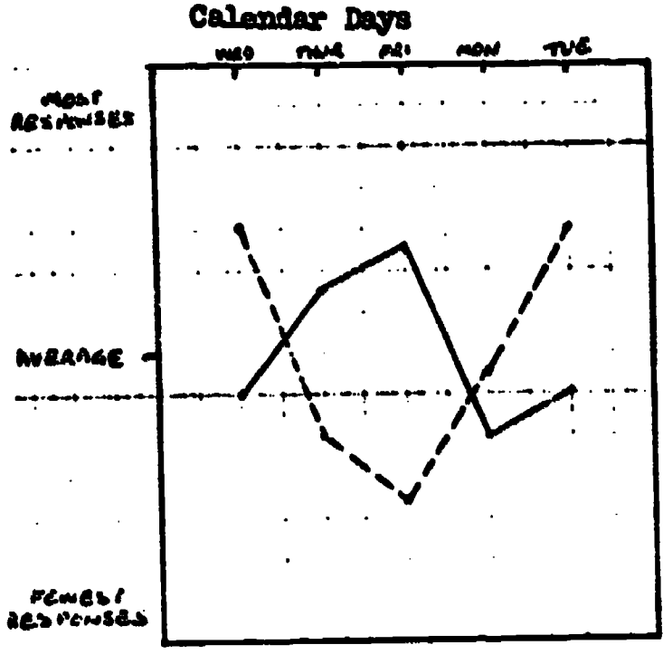


Figure 4

Responses by Calendar Days

By arranging the ranking according to the calendar it seems that participants are more critical and feel less positive towards the program on Thursday and Friday.

Further studies into the participants' affect on (1) different days of the institute and (2) different days of the calendar week may prove useful to future I.D. Institutes. If it proves to be true that participants feel most negative on Fridays and on the third day of the institute, then it would be regretful to have the two on the same day, thus reinforcing each other.

To learn what most of the participants were saying about the Institute, it became necessary to cluster their comments. Almost all of the responses fell within the general topics of:

Content
Materials
Organization
Attitude
Environment

When each day's responses are arrayed proportionately within the topics and further displayed by positive and negative comments (See Figure 4), several factors become apparent.

* Participants had the greatest praise for the content of what they were learning-both the knowledge gained and the process experienced.

* Their next foci for praise were the IDI materials and media, except on the 3rd day; this will be discussed later.

* As had been anticipated, the criticisms centered on the physical limitations-the long hours, the "too short" week, the heat, the cold--and they consistently felt this way throughout the week.

* Participants generally felt positive about the staff, how organized they were and how well all the activities had been planned.

* And they felt good about themselves as participants.

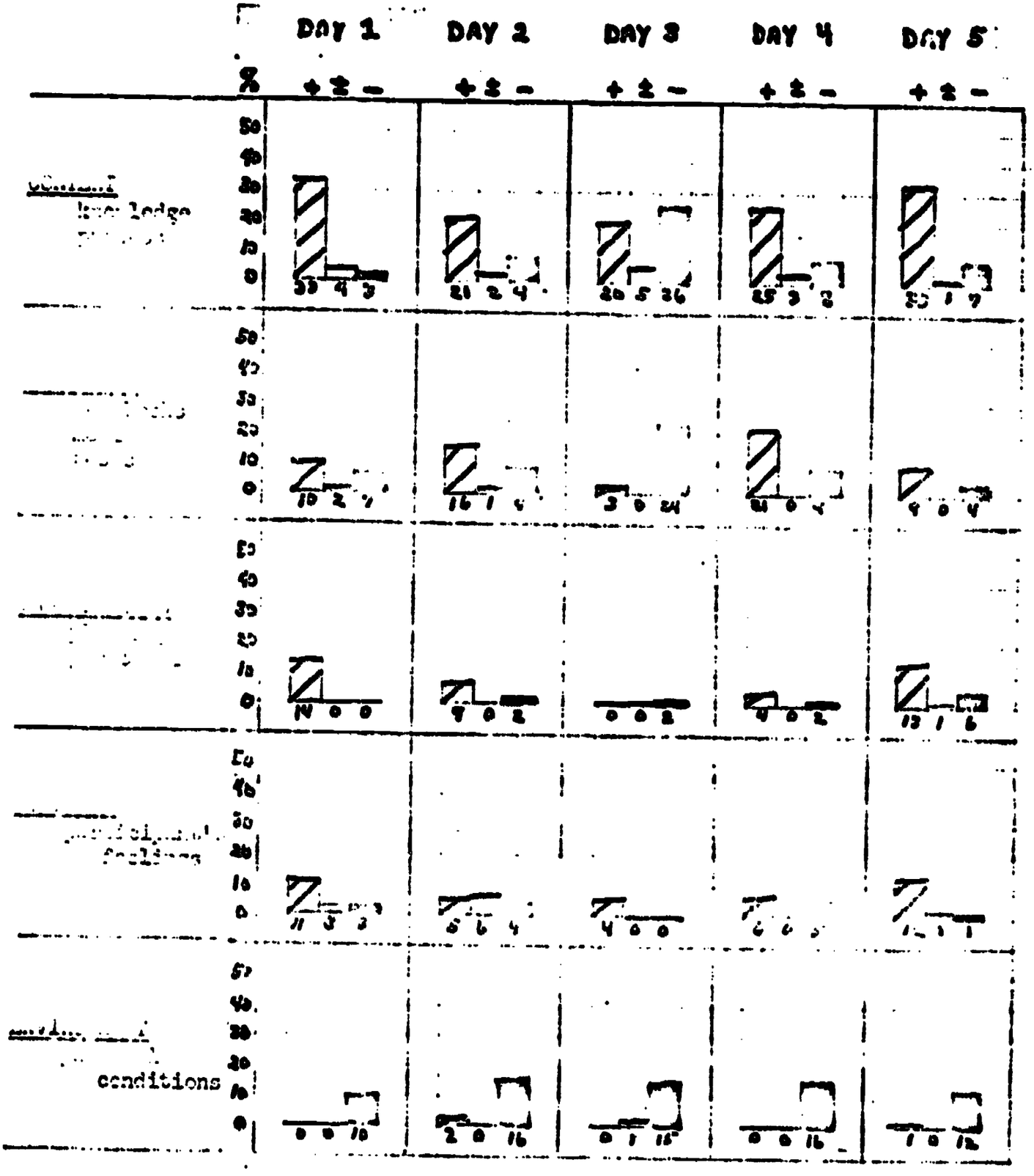
The following are two quotations typical of the ways participants chose to express their positive attitudes. "If today (1st day) is an example of the days to follow, I shall thoroughly enjoy this institute." "Someone told me (a former IDI person) that I would never be the same. I believe her, and hope so. I hope so because I would certainly like to be able to follow a system that could lead me to become a better teacher."

Figure 5

TOPICAL RESPONSES:

PROPORTION EACH DAY

positive responses
neutral responses



Total: 100 99* 100 99* 101*

*Rounding error

DAY ONE ACTIVITIES

A. Introduction by film and slide-tapes (2)
B. Group Puzzle
C. Small group film presentations and discussions
D. Introduction to the Systems Approach by slide-tape
E. Team review exercise
F. Game: "The Instructional Development System Game"
G. "Funny Money" - game and discussion groups
H. "A Concept of Change" slide-tape and group discussion
I. Post-test for review
J. Introduction to Innovation Interaction Game

Participants, in their initiation to the IDI process, reacted favorably to the experience. Twenty-two percent of the responses that day indicated that they found IDI to be informative, enjoyable, and "helpful to implement in the classroom."* A few, 3%,** found it boring--"program stagnated at first," "hope it becomes more interesting"; but they are compensated for by the 12% who found it challenging and interesting.

In specific reference to the films, 6% were critical and only 3% praising. Several felt there was too much media (films, filmstrip, slide-tape) and 1% (two people) mentioned the lack of relevance. One stated:

> "Audio-visual aids should be geared to more realistic settings such as inner-city, using more relevant black students, teachers, etc., that are found in the D. C. area."

The puzzle was cited as instructional and interesting, and the responses about today's games were generally positive; although several people specifically suggested better game preparations: "Make sure people understand game procedures" and, "give time to study definitions."

---

* All phrases enclosed in quotation marks have been taken directly from the Feedback Sheets.

** All percentages reflect the percentage of total responses given on the feedback sheets that day. The responses were so widely diffused between subjects that only the most frequently mentioned items will be cited in this report.

Several of the participants (3%) were discouraged this first day: "Today-discouraged because I was looking for a beginning on our school problems"; "This week-is the longest week of the year." But 10% were encouraged about the week; they expressed their feelings in these ways: "It was not the threatening experience I had imagined"; "I hope to be able to help children"; "The week will be long, but hopefully fruitful. I think I'll be able to endure"; and, "I'm looking forward to the week."

The biggest feather-in-the-cap for IDI comes from this learned participant:

> "A most challenging and fruitful experience. The staff is a well and even-tempered group of professionals. I have worked with the systems approach to teacher education on the college level, but this experience tends to make a smooth transition of those concepts to a language I can relate to and share on my particular level (Elementary Education). This has been one of the most informative and enlightening experiences I have encountered . . . and I have a doctorate degree."

DAY TWO ACTIVITIES

A. Innovation Interaction Game
   Slide-tapes (2)
   Role meetings for participants
   Game: Round 1
B. "Application of Systems Theory to Instructional Development"
   Programmed Instruction Manual
   Film: Identity Problem
C. Innovation Interaction Game
   Game: Round 2
   Referee Critiques

Reactions to the Innovation Interaction Game were strong and controversial. Eleven percent liked the game, but eight percent disliked aspects of the game. One person felt a role conflict in the game and another felt that the game interrupted their school planning.

Several persons (4%) echoed the common complaint of "not enough time"--in this case to play the game. And 5% felt that

they had not been given enough information or directions for the role playing. The lack of direction was intentional and part of the game design; although this "hidden rule" was not revealed to the participants until after the game. Some participants had some specific suggestions:

> "Role playing should take place in the morning when participants are at their best."
>
> "The second part of the game could probably be done all in one session, before viewing the film . . . . Characters are too careful and not as relaxed after the movie."
>
> "Stage I: Define--a clue should have been given at the very beginning to the chairman. It would have eliminated some confusion."
>
> "The game needed more preparation in terms of characters to be played and rules."
>
> "The synopsis of the situation is misleading. One is led to believe that what we read will be the situation set up."

Today, some participants (3%) began complaining about "Information Overload" (an IDI buzz word) and they asked to slow down. They complained that they were too programmed and that there was too much pressure.

In contrast with this mood, a majority of 22% said that they were finding the Institute to be informative, challenging and rewarding.

DAY THREE ACTIVITIES

A. "Application of Systems Theory to Instructional Development"
   "Analyze Setting" Manual and Film
   "Organize Management" Manual and Film
B. Case Study: Norwalk-LaMirada, introduction and Slide Tape
C. The Planning Exercise
   TABS Team Formation
   "Identify Problem", Slide-tapes (2) and Manual
   "Analyze Setting", Slide tape and Manual
   "Organize Management", Slide tape and Manual
   Specifications

The Institute's third day has been shown to have the greatest predominance of negative responses over positive responses. (See Figure 4) A glance at this chart raises the issue of whether the negative comments are caused by the day of the week, Friday, or the content of the day's work. It is not possible to answer this question, but it is feasible to learn the kinds of things the participants are commenting upon.

In contrast to the other days, media and materials were singled out for criticism. Seventeen percent of the total responses were critical; whereas only three percent were positive. The materials used this day were predominantly slide-tapes and workbooks. Typical comments were "film after film--no attempt made to make the information interesting"; "eliminate the film with the compressed voices"; "Example titled 'Following Lab Directions' wasn't adequate"; and "The workbook idea was too negative or passive." Some suggestions were made:

* "Much of the individual work done was not followed by group assessment causing a loss of continuity (on my part)."

* "We should be informed a day before as what to expect, e.g. in some form of agenda."

* "If one were permitted to browse through manuals at home prior to introductions of the functions, I conceive of less frustration and more digestion in pressure situations."

This last comment referring to pressure alludes to a point made by one IDI staff member; that is, that the third day of the institute is the one in which the participants are first required to produce--that they are no longer just recipients of information, but must work together as a team. One response corroborates this: "When our team met, we found it quite conflicting to get our team to agree on parts of our organization and management."

The same person goes on to say, "I have found that working with teams does help one to develop better ideas." This is the day that participants begin to look on their team as a major factor in their instructional development activities. Four percent found the school team work very beneficial, and an additional three percent felt that more work should be done in the school team groups.

Addressing the issue of process, or the IDI experience, 25% of the participants complained of Information Overload--too much material, and too much repetition. One response shows both sides of the coin:

> "Today Information Overload really took its toll. This week . . . lots of mind-boggling terms and concepts to digest in a short time . . . beginning to see the entire system and its many facets come into focus."

And this attitude is reinforced by the 26% of today's responses which cited IDI for being informative and enlightening. This third day brought out both the high hopes and the disappointments the participants are experiencing with the IDI system:

> "Today was frustrating and confusing. Our team was busy 'Thinking Big' when someone came to tell us the impossibility of planning a large system. This, I believe, would not have been so confusing if, before the session started, an explanation of need for a mini-mini system was presented . . . . We have been excited about even thinking big all week, so the fall from Cloud 9 was even harder."

DAY FOUR ACTIVITIES

A. Performance Objectives
   Slide-tape
   Self-instructional Objectives Package
   Self-assessment
B. Objectives Marketplace Game
   Introduction and Slide-tape
   Game: Parts I & II, Feedback, Parts III & IV
   Company Reports and Debriefing Session
C. Planning Exercise, Slide-tape and Manual
   "Identify Objectives," Slide-tape and Manual
D. Strategies and Media
   "Specify Methods," Slide-tapes (3) and Manual
   (2) Post-test

Participants were pleased with today's materials: 4% cited the Behavioral Objectives materials as excellent and 6% liked the game. There was a negative response of 6% which felt that there were too many film and slide presentations.

The attitudes of the participants were mixed; 6% were positive and 4% negative. Two of the individual comments were:

* "Had a grueling day of slides and feedback material. However, I surprised myself at what I learned and was able to apply as to working with our prototype."

* "The film is not reinforcing! This causes frustration because the steps cannot be completed while we watch the junk."

The enthusiasm for the content was, as usual, a high 26%. There were some complaints (6%) about the IDI process: "Too much abstract material. We need time to work together as a school on our problem"; and "IDI is a closed system that stifles creativity." Four percent echoed this feeling of wanting to work more on their own school problems, and six percent were feeling more sure of the procedures and more serious about absorbing as much as possible.

DAY FIVE ACTIVITIES

A. Evaluation
   Slide-tapes (2) and Manual
   Post-test
B. "Construct Prototype", Slide-tape and Manual
C. "Test Prototype", Slide-tape and Manual
D. "Analyze Results" and "Implement/Recycle"
   Slide-tapes (2) and Manual
E. Manual: "What's Next?"
F. Survey: "Attitude Toward Instructional Development"
G. Synthesis of I. D. I., Film and Slide-tape

The overwhelming response on this last day, much as on the first day, was a positive assertion of 32% in reference to the IDI content. Many of the participants used this day's feedback to summarize their observations of the institute:

Knowledge: "I have thoroughly enjoyed participating in the IDI. I have gained so much--knowledge, materials, and a systemmatic model for developing an instructional unit truly based on the needs of learners."

Teamwork: "I have gained a new respect for the value of working together as a team, to look at what it is, compare it with what should be, and together develop a step-by-step strategy to narrow the gap between the two."

Personal Growth: "Most important, however, is the attitudinal and behavioral changes this workshop has produced within the participants. These changes will be taken back to the respective buildings of the participants and shared with peers and professional colleagues. Positive behavior change is contagious and consequently, will affect each staff in a positive, fruitful and highly desirable manner."

In contrast, 6% responded negatively to the institute and an additonal 4% complained of Information Overload. Some of the individual reactions to IDI are of interest:

> "I don't know how I managed to stay alive, but somehow I did."
>
> "I never knew one person could be bombarded with so much information with no time for digestion."
>
> "I was highly motivated by the institute. . was also made to reach points of frustration and at times I wondered how long I could hold on to my sanity and not miss anything."
>
> "This week has drained most of my physical energy, while introducing me to a new way of thinking and approaching a problem. I have never been so tired of one discipline in my life, yet want to-going to try it for effect."

Materials for the program were rated an equivocal 6% positive and 5% negative. The participants still felt strongly about the need for more time, the need for an extra day, and how the hours were too long and tiring; these comprised 13% of the day's responses.

The attitude of the participants was predominantly positive (8%) and expressed in such ways as: highly motivated--looking forward to week; sense of accomplishment; new attitude on self and teaching; improved attitudes among participants; time spent worthwhile; and will begin to focus more on student needs.

The IDI staff were praised (8%) with comments as good, helpful and thoughtful, well-informed, pleasant and considerate, and "medical students super." Six percent felt that the instructional preparation and planning were very good, that the program was well organized and efficiently carried on by the IDI team. Complaints (2%) focused on the inability of the teams to get themselves together.

Over the course of the week, many recommendations were made, and while they were not mentioned by enough persons to be included in the daily summaries above, they still may prove worthy suggestions for improving the Instructional Development Institute:

- Audio-visuals should be geared to the inter-city.
- Have the brain-teasing games in the morning.
- Don't change rooms so much on the last day.
- Provision should be made for an additional make-up day in case of emergencies.
- Don't give homework.
- The classroom in the hall is too distracting.
- Leave the windows open; have more air; ban smoking.
- The answers submitted in assignments should be discussed as to why certain ones are correct and others incorrect.
- Serve coffee by 8:00 in the morning.
- A restroom is needed on this floor.
- Lunch was too early.
- Give daily agendas
- Get larger desks or use tables.
- For group activities always use the same team.

- Give out less material.
- We need a dictionary.
- Using people's first names was very good.
- Select TABS to include those persons who will make the changes.
- The book, Evaluation for Instructional Development, should be done over a two-day period.
- The Descriptive Matrix (Orange Book, p. 10) was excellent.
- Extend IDI more on the secondary level.
- Try giving a few more examples for the exercises.
- It is regretful that we were not allowed to use our original problem statement.
- Time was a major factor: Once we became engrossed in an interesting activity, we often had to stop and begin another step or procedure.

One strong recommendation, unique to the Washington, D. C. School System referred to the idea of PACTS [Parents, Administrators, Community, Teachers, and Students] introduced by the Superintendent, Barbara Sizemore. The specific recommendations were:

> "PACTS should become more involved."
>
> "The TABS teams are composed similar to the Superintendent's PACTS. Since parents are first in PACTS, I feel strongly that parents should be invited to become active members of the TABS team. Parents are helpful in many ways."
>
> "All of the information learned in this institute, if earnestly applied, will aid us, the teachers, in accomplishing the PACTS introduced by Superintendent Sizemore. Before this institute, I thought the implementation of PACTS was impossible."

The mechanism of Feedback Sheets and the effective use made of them by the participants proved a positive contribution to IDI, both in providing on-going input for improvement to the program and in giving guidance for future development of the IDI system.

Participants' Program Evaluation

The Instructional Development Institute Participants' Program Evaluation instrument was finalized in January 1974. Forms were mailed to each participant of Institutes I through VIII on January 16 and 17, 1974 along with addressed return envelopes. Forms for participants of Institute IX and X were mailed February 15 and March 1, 1974 respectively. Each mailing date was at least one month after completion of the five-day Institute. Cover letters to all participants listed a return date that allowed at least ten days for completion of the evaluation and two days mailing time.

A total of 476 forms were distributed. This number included 214 to participants in Institutes I through IV and 262 to participants of Institutes V through X. One hundred fifty-two, or 32% of the forms were returned. This included 56, or 26% from participants of Institutes I through IV and 96, or 37% from participants of Institutes V through X. These returns were representative of 58% of the teams in Institutes I through IV and 71% of the teams in Institutes V through X.

The instrument focused on the three phases of the IDI process: (1) the pre-institute phase and all of the activities required of IDI staff and participants prior to the start-up of the five-day institute workshop, (2) the institute phase during which the teams were required to attend for the full five days, and (3) the post institute phase when the teams were to return to their schools and implement the Instructional Development program.

Pre-Institute:

Prior to attending the institute, each school was required to complete certain activities. These were (1) form a team, (2) identify the problem areas, (3) select a team coordinator, (4) select a game referee, and (5) submit the application. From the responses it can be inferred that most participants were involved in deciding on the problem area, but were not always as aware of other pre-institute preparation requirements and activities.

The team that each school was asked to form was to consist of two (2) classroom teachers, one (1) librarian, one (1) principal or assistant principal, and one (1) subject specialist or resource person in the field chosen by the school as its problem area. The instructions for choosing these participants was stated as: "The selection of participant classroom teachers is to be by mutual agreement of the Building Representative, Washington Teachers Union and the principal." In all cases the principal and librarian were designated according to I.D.I. guidelines. The remaining positions were selected in various ways. In the majority of the cases, however, participants were selected

from volunteers either by the chapter advisory, the principal, the faculty or by the subject department chairman (secondary level only).

Another requirement of the team prior to the institute was to "Identify the critical learning or instructional problem area specific to your school, to which the team will address itself." In meeting this and other pre-institute requirements, did the schools receive assistance from the IDI staff? This was another issue addressed by the evaluation. Of the 53 teams represented in the responses 18 said they received pre-institute help from I.D.I. Thirty-two (32) indicated that they did not, and three (3) did not respond. It is known through observation that all teams received referee training. The negative responses further point out the fact that all participants were not aware of the pre-institute phase. In many instances a person was designated to be the referee without the knowledge of the other team members. For participants of the latter Institutes (1974) the I.D.I. staff decided to work with each team during registration in an effort to sharpen the focus of each schools' problem area. Through this effort more teams entered the Institute with a defined problem statement.

Participants were asked to list ways that they thought the pre-institute phase of the program could be improved. Responses are shown in Tables IV and V for participants of Institutes I through IV and Institutes V through X respectively. It might be noted that for each group of participants less than half made comments.

Participants from both the spring 1973 group and the school year, 1973-74 group emphasized the need for a better understanding of the IDI process and what it involved. Only in the infrequently cited items is there a difference between the two groups; the spring citation is for more preparation time, and the fall citation is for more help in stating the problem. This is the opposite of what would be expected; however, the I.D.I. emphasis on the problem statement in the 1973-74 year may have been the factor which made the participants more aware of that need.

The other improvement suggested by both groups is for I.D.I. to make initial contact with each participant. This item and other findings of the evaluation indicate that one of the problems of the team in the school was that information received by the team member after the I.D.I. was not necessarily disseminated among the whole team during the pre-institute phase.

Looking at the recommendations from the perspective of the

Table IV

Opinions of Participants of Institutes I Through IV As To How The Pre-Institute Phase of the Program Could Be Improved With Responses By Profession

Opinions About Pre-Institute Improvement	Number of Responses					
	Prin. N=6	Tchr. N=19	Libr. N=12	Spec. N=5	C.A. N=14	Total N=56
1. Give the participants a complete summary or overview in advance of the workshop spelling out all the requirements, expectations and commitments.	2	9	6		1	18
2. The pre-institute phase was adequate	1	2	2	1		6
3. Have a meeting of all participants prior to the institute		1				1
4. Allow more time for preparation					1	1
Total Responses	3	12	8	1	2	26
Number Not Responding	3	7	4	4	12	30

Table V

Opinions of Participants of Institutes V Through X
As To How The Pre-Institute Phase of The Program
Could Be Improved With Responses By Profession

	Prin. N=16	Tchr. N=43	Lib. N=16	Spec. N=11	C.A. N=10	Total N=96
1. Give the participants a complete summary or overview in advance of the workshop spelling out all requirements, expectations and committments.	5	13	6	7	1	32
2. None needed	1	2	1	1		5
3. Notification, we were unaware of the pre-institute phase		3			1	4
4. Send out announcements for each participant		1	1		1	3
5. More help in stating the problem		2		1		3
Total Responses	6	21	8	9	3	47
Number Not Responding	10	22	8	2	7	49

various professionals represented, there is little difference in their major emphasis on the need for a pre-institute preview (68% of those completing the item); however of those participants stating that no improvements were needed, only 12% of the teachers made that statement and all other groups had an average of 20% agreement. This may mean that teachers were not as satisfied with the pre-institute preparation as the other groups. The persons from Central Administration made a strong suggestion (40% of those completing the item) that individuals be given better notification of pre-institute activities. Perhaps this reflects a special need they have as a result of being separate from the school teams.

And finally during the pre-institute phase, the evaluation sought to look at the issue of commitment: Did the participants know what would be expected of them? Were they willing to go through with the whole process? Eighteen (18) did not respond, one (1) did not know, but the majority, ninety-eight (98) of the participants stated that they did know what would be required of them in contrast to the thirty-six (36) who stated that they did not.

The next step was to learn whether or not the participants were willing to see the process through to completion. Seventy-six percent (76%) responded yes, nine percent (9%) responded no, and fifteen percent (15%) did not know if their team had made a commitment to the Instructional Development Institute to complete the program in its entirety.

Institute:

Participants rated the I.D.I. Instructors as a group in six areas of instruction using a scale of poor, fair, good, and excellent. Number values of 0, 1, 2 and 3 respectively were assigned to each category on the scale. Cumulative scores were obtained from which group means were computed.

Separate computations for Institutes I through IV and Institutes V through X revealed little or no difference in the participants' rating of Instructors, therefore a combined rating for all ten Institutes is presented in Table VI.

Table VI

Participants' Ratings of I.D.I. Instructors
In Six Areas of Instruction For Institutes I through X

Areas	Rating		
	No. of Participants	Mean	Category
Preparation	141	2.78	Excellent
Presentation of materials	151	2.69	Excellent
Knowledge of materials	151	2.58	Excellent
Attitude	151	2.66	Excellent
Involvement with participants	151	2.58	Excellent
Leadership	150	2.51	Excellent

Participants were very positive in their ratings of the I.D.I. Instructors. In may cases the instructors were their peers, who had been previously trained in the systems approach.

An important part of the evaluation instrument consisted of the completion of a rating scale in response to the following statement:

> "As a result of I.D.I. rate the extent to which you gained initial skills enabling you to perform the following tasks in the systems approach to problem solving."

The five point rating scale ranged from "not at all" to "totally." Assigned values ranged from 1 to 5 respectively. Group means were computed for all participants.

Table VII is set up in the same format used for the rating scale included in the Participants' Program Evaluation Form with the addition of a means column. Also an "x" has been placed in the rating column indicating the category where a particular mean falls.

Table VII shows that in the opinion of the participants initial skills were gained, "to a great extent" throughout the "Define Stage" and mainly through the "Design Stage," to complete the tasks common to that particular phase of the systems approach. Skills were gained for performing the remaining tasks "to some extent." These positive ratings by the participants are supported by the results of the Pre-Post Inventory.

Table VII

Participants' Ratings of The Extent To Which They Gained Initial Skills To Perform Certain Tasks Relative To The Systems Approach To Problem Solving

	Tasks	Ratings					Means
		Totally	To A Great Extent	To Some Extent	Not Sure	Not At All	
	I gained skills enabling me to:						
Define Stage	a. Identify a problem by						
	(1) assessing needs (status quo vs. ideal)		x				3.8
	(2) establishing priorities (propose tentative solutions)		x				3.8
	(3) writing a problem statement		x				3.8
	b. Analyze the setting by						
	(1) identifying the audience (learner characteristics)		x				3.9
	(2) analyzing existing conditions		x				3.8
	(3) determining resources available, needed		x				3.9
	c. Organize management by						
	(1) assigning tasks to team members		x				3.7
	(2) assigning responsibilities		x				3.7
	(3) establishing time lines (schedules, etc.)		x				3.7
Develop State	d. Identify objectives by						
	(1) writing terminal objectives		x				3.8
	(2) writing enabling objectives		x				3.7
	e. Specify methods by						
	(1) constructing performances measures		x				3.5
	(2) determining instructional strategies		x				3.6
	(3) determining media forms		x				3.6
	(4) specifying alternatives			x			3.4
	(5) specifying design(s) for evaluation			x			3.4
	f. Construct prototypes by						
	(1) developing and collecting instructional materials		x				3.6
	(2) constructing and collecting evaluation materials		x				3.6
Evaluation Stage	g. Test prototypes by						
	(1) carrying out instructions as planned (tryouts)			x			3.4
	(2) collecting evaluation data (tabulate and process)			x			3.4
	h. Analyze results by						
	(1) determining relationships between results and objectives			x			3.4
	(2) determining relationships between results and methods			x			3.4
	(3) analyzing evaluation techniques (determine relevancy)			x			3.4
	i. Implement/Recycle by						
	(1) reviewing for indications and/or suggestions for revisions			x			3.4
	(2) deciding whether suggested revisions calls for recycling or implementation without major revision			x			3.3
	(3) acting (implement or recycle)			x			3.3
	Aggregate		x				3.6

Eighty percent of the responses indicated that the teams in Institute I through IV were functioning as a group at the beginning of the Institute and 84% said this was the case at the end of the Institute. Over 85% of the responses indicated that the teams of Institutes V through X were functioning as a group at the beginning and at the end of the Institute. Only one team (from Institute I) was said not to be functioning as a group by the end of the Institute. The remaining percentages not included above said their teams were functioning as a group "somewhat."

Post-Institute:

At the completion of the Institute, and after the participants returned to their respective schools, 25% of the teams reported that an average of 2 persons each expressed a desire to join the team. Thirty-six percent of the teams made no comment in this connection, and 39% responded that no one had asked to join.

Twenty-two teams, or 42% of the 53 teams reporting, indicated that the composition of their original I.D.I. team had changed. The greatest changes were with teams in the first four Institutes held in the Spring of 1974. The main reason for this was that during the summer months members were lost through transfers, retirements and leave.

The following two tables show the responses by profession as to whether the teams have continued to function in the schools. The reasons given for not continuing to function are given in Tables VIII and IX. Forty-eight percent of the respondents from Institutes I through IV said that their team has continued to function while 90% of the respondents from Institutes V through X said that their team has continued to function.

Teams which attended the first four Institutes (Spring '73) indicated that they had met an average of three times during the school day and six times outside the school day for one to two hours per meeting since attending the Institute. Teams of Institutes V through X (school year 1973-74) indicated that they had met on an average of six times during the school day, and four times outside the school day for one to two hours per meeting, since attending the Institute.

Table VIII

The Continued Functioning of IDI Teams After Each of The Institutes 1 Through IV

Continued Functioning	Prin. N=6	Tchr. N=19	Lib. N=12	Spec. N=5	C.A. N=14	Total N=56
1. Yes	3	12	5	2	5	27
2. No	3	6	6	3	7	25
3. No Response		1	1		2	4
Totals	6	19	12	5	14	56
Reasons for not continuing to function:						
1. No release time to get together	1	5	4			10
2. Special team of Central Administration Personnel not designed to continue functioning as a group					7	7
3. Some members were transferred	1		1	2		4
4. No reason given	1	1	1			3
5. Some members are itinerant				1		1

Table IX

The Continued Functioning of IDI Teams After Each of The Institutes V Through X

Continued Functioning	Prin. N=16	Tchr. N=43	Lib. N=16	Spec. N=11	C.A. N=10	Total N=96
1. Yes	14	39	14	10	9	86
2. No	2	2	2	1		7
3. No Response		2			1	3
Totals	16	43	16	11	10	96
Reasons for not continuing to function:						
1. Too many other responsibilities		1	1	1		3
2. No release time to get together	1	1				2
3. No reason given	1					1
4. Lack of desire, effort, etc.			1			1

Participants were asked to indicate the tasks, or steps of the systems approach which they had completed, the average number of weeks needed for completion, and the tasks planned or being completed. Due to the time element (Institute participation to participants' program evaluation completion) the data was tallied and presented in three different groupings of Institutes. See Table X.

One would expect that, for Institutes I through IV and possibly Institutes V through VIII also, the percent of teams "completing" or "having planned" for task completion would equal 100% for all nine tasks. However, there remains the fact that some teams did not continue to function for reasons previously stated. Other problems and/or reasons why tasks were not completed are listed below in the order of the ones cited most often. The number in parenthesis indicates the number of persons citing a particular reason.

1. Scheduling difficulty (28)
2. Lack of release time for teachers (23)
3. School administration; lack of initiative and cooperation (8)
4. Apathy among team members and faculty (6)
5. Some team members were itinerant (6)
6. Lack of understanding; testing prototypes, etc. (3)
7. Lack of follow-up by I.D.I. staff (2)
8. Scheduling of Institute: too near Christmas holidays (2)
9. Lack of proper facilities (2)
10. Changes in departmental goals (1)
11. Lack of organization (1)
12. Change in school administration (1)

When asked what help was needed to enable their teams to progress further in completion of the tasks, 35% of the 94 participants who responded said that the greatest need was for released time. This was followed by the need for help from the I.D.I. staff (stated by 23% of those responding), a renewed team commitment (10%), administrative support (9%), faculty and staff support (7%), help from resource personnel (4%), clerical help (3%), parental help (3%), tutors (1%), and a paid in-service Saturday morning workshop (1%). The remaining 4% of the respondents said they were unable to determine the help needed.

In stating what they considered the three major strengths of their team the 152 respondents (Institutes I through X) had an opportunity to cite a total of 456 strengths. See Table XI which is based on the total number of times a particular strength was mentioned. The strengths are also listed according to the ones cited most often.

Table X

Participants' Responses As To The Completion
of The Nine Tasks/Steps of The Systems Approach To Problem Solving

Institutes/ Dates Held	Number of Teams Responding	Tasks/Steps	Percent of Teams With Tasks Completed	Average Number of Weeks Planned For Completion	Percent of Teams Completing or Having Planned For Task Completion
I - IV March-May 1973		1. Identified Problem	88%	8 weeks	100%
		2. Analyzed Setting	94	10	94
		3. Organized Management	88	10	88
		4. Identified Objectives	83	11	86
		5. Specified Methods	82	12	85
		6. Constructed Prototypes	65	14	76
		7. Tested Prototypes	41	18	70
		8. Analyzed Results	29	18	70
		9. Implemented/Recycled	24	15	53
V - VIII Sept.-Dec. 1973		1. Identified Problem	93%	4 weeks	93%
		2. Analyzed Setting	93	4	93
		3. Organized Management	87	6	87
		4. Identified Objectives	73	8	93
		5. Specified Methods	73	10	87
		6. Constructed Prototypes	33	12	80
		7. Tested Prototypes	7	9	67
		8. Analyzed Results	7	9	73
		9. Implemented/Recycled	7	10	53
IX - X January 1974		1. Identified Problem	90%	2 weeks	90%
		2. Analyzed Setting	80	2	90
		3. Organized Management	70	2	70
		4. Identified Objectives	90	3	90
		5. Specified Methods	70	4	80
		6. Constructed Prototypes	40	5	70
		7. Tested Prototypes	0		60
		8. Analyzed Results	0		60
		9. Implemented/Recycled	0		70

Table XI

Participants' Listing of The Major Strengths
of Their Team-Institutes I through X

Major Strengths	Number of Times Cited
1. The team's organization, cooperation and effort	226
2. The knowledge and experience of team members	56
3. The team's willingness to be innovative	10
4. The leadership of the team	6
5 The team's ability to involve supportive personnel	5
6. The team's ability to collect media	5
7. The team's interest and concern for students	4
8. The team's rapport with the faculty	2

Far outranking all other responses was the team's organization, cooperation and effort. This supports the systems approach to problem solving in that one of its basic requirements was the "team" approach.

In citing the three major problems encountered by their team, participants again had an opportunity to list a total of 456 problems. The following table is set up in the same manner as the preceding table (Table XI) displaying strengths.

Table XII

Participants' Listing of the Major Problems Encountered by Their Team-Institutes I Through X

Major Problems	Number of Times Cited
1. Finding a time when all members could meet together	115
2. Putting it all together i.e. materials, tasks, media, etc.	38
3. Limited cooperation and I.D.I. knowledge of the staff	22
4. None (no major problems)	14
5. Apathy of some personnel	12
6. Lack of local and central administration's support	7
7. The division of team members between two schools	6
8. The loss of members through transfers	5

The first major problem, ranked according to the number of times cited, supports the participants contention that released time was the thing most needed for the teams to complete their tasks.

Participants were also asked to give their opinions as to the three greatest strengths of their school in support of their team's development of the systems approach to problem solving, especially in implementing their prototypes (plans). Table XIII on the following page presents these opinions.

Table XIII

Participants' Listing of The Greatest Strengths of Their School In Support of Their Teams' Development And Implementation of Prototypes

Greatest School Strengths	Number of Times Cited
1. The cooperation and support of the staff	112
2. The support of the school's administration	29
3. The support of resource personnel	15
4. The support of the counselor	9
5. The support of the parents	8
6. The open line of communication	5
7. The response of the students	1

One thing that the table points out is that the I.D.I. teams felt that the involvement of others in their efforts to develop and implement their plans was very important to their effort. Even though parental support was mentioned only eight times, it does show that they were involved to a degree. It is interesting to note, however, that one of the needs cited was for parental help.

Participants were asked whether human relations in their school had been improved as a result of their team's I.D.I. experience. Also they were to state whether or not the I.D.I. experience had played a role in their school's staff development activities. The responses to these two items revealed some differences of opinions between participants of Institutes I through IV and those of Institutes V through X. Therefore, the results are shown separately for each group in the following table.

Table XIV

Participants' Opinions As To The Effect I.D.I. Has Had In Improving Human Relations And In Staff Development

Possible Effects	Percent of Responses	
	Institutes I-IV N=56	Institutes V-X N=96
A. Has improved human relations in the school:		
Yes	20%	44%
No	27%	7%
Don't know/No Response	53%	49%
B. Has played a role in improving the school's staff development activities:		
Yes	36%	52%
No	36%	34%
Don't know/No Response	28%	14%

The data in Table XIV reveals that the I.D.I. experience had a much greater impact on human relations and staff development in the schools of the participants of Institutes V through X. Forty-four percent said human relations were improved as opposed to only 7% who responded "no". Over half of those responding (52%) said that the I.D.I. experience had played a role in their school's staff development activities.

In an effort to assess the effect I.D.I. had on students, the participants were asked to indicate the degree to which their I.D.I. experience had a positive effect on students in their school. Only 18 participants of Institutes I through IV and 35 participants of Institutes V through X supplied this information. The following table gives grade level(s) involved, the problem area, the effect on the students with the number of students in parenthesis, and the degree of effectiveness expressed as "very little, some, great and total." In some cases all of the items mentioned were not given. While Table XV reveals the need for more evaluative measures to assess the effect of I.D.I. on students, it does show that some impact was made in grade levels ranging from kindergarten through twelfth grade.

Table XV

The Degree To Which The I.D.I. Program Has Had A Positive Effect On Students

Grade Level	Problem Area	Effect (number of children)	Degree
K-	Finding the main idea	More media in the instructional center (60)	Some-great
	Finding the main idea	Growth in terms of detailed objectives given for each level	Great
	Reading written Directions	More aware of teacher involvement in developing individualized learning activities	Some
1	Math vocabulary	Beginning to follow directions (28)	Very little
2	Attention span	Cannot answer at this time	Very little
	Reading for sequence and main idea	Increased reading skills (13)	Great
	Following directions	Knowledge of desired goals (15)	Great
	Following directions	Experiencing sucess (15)	Great
2&3	Following directions	Greater awareness of learning (62)	Some
3	Finding the main idea	Special Education teacher writes better objectives (TMO's and (EO's) (12)	Some-great
	Reading: visual discrimination	Awareness of 3rd grade reading problems	Some
4	Dictionary: Location skills	Not yet tested (29)	Some
	Word attack skills	Diagnosed needs (25)	Great
	Word attack skills	More individualized instruction (50)	Some
	Word attack skills	Increased media and materials (591)	Some
	Dictionary skills	Ability to learn, define and use words in a sentence	Total
	Reading in content areas	Participation in presentation of problem practice (10)	Total

Table XV (cont.)

Grade Level	Problem Area	Effect (number of children)	Degree
4&5	Finding the main idea	More receptive to flexible library scheduling (250)	Some-great
4,5&6	Reading: word analysis, long vowel sound	Children referred for special services (20)	Great
5	Alphabetizing	No trail with students yet (25)	Very little
	Following written directions	Experiencing different types of media (20)	Some
	Following written directions	Learned how to operate machines (10)	Great
	Following written directions	Learned to keep own progress records (25)	Some
	Following written directions	Collected data for instructional purposes(12)	Some
	Finding the main idea	Ability to find the main idea (87)	Some-great
	Finding the main idea	Implementation not yet begun	
6	Reading comprehension	Too early to measure (16)	
	Mathematics	Presentation of various media to secure maximum computation skills (8)	Some
	Mathematics	Demonstration of addition problems and finding sums of large numbers (5)	Some
	Math in practical situations	Analyzing data to support opinions (5)	Total
	Math in practical situations	Pupil enthusiasm to participate (4)	Total
	Math in practical situations	Introduction of more media (91)	Great
	Math in practical situations	Students interested in working to improve in math	Some
	Finding the main idea	Beginning group to initiate the project(10)	Some
	Reading comprehension	(10)	Very little

Table XV (cont.)

Grade Level	Problem Area	Effect (number of children)	Degree
7	Word attack in content areas	Gained skill in attacking words independently in subject matter areas i.e. English, math, social studies, science and special education (65)	Some
	Mathematics	Mastering basic whole number computation	Great
7,8,9	Mathematics	Using basic operations with whole numbers in everyday life (1,200)	Some
	Individualized instruction	Functioning in a regular classroom (12)	Great
9	Comprehension skills		Some
10	Reading	(12)	Some
10,11,12	Challenging bright students		Very little
	Finding the main idea	Not yet implemented(500)	
Non-graded	Reading for career awareness	(208)	Very little

Sixty-six percent of the respondents indicated that they had integrated more media into their instructional strategies as a result of their experiences during the Instructional Development Institute. Likewise, as a result of their experiences, 73% said that they have used the skills of the systematic approach in the development of their instructional program. In addition many of the participants cited personal or professional benefits gained as a result of the I.D.I. experience. These benefits are shown in Tables XVI and XVII categorized by professional positions for participants of Institutes I through IV and participants of Institutes V through X respectively. In each table the benefits are ranked according to the total number of times mentioned. Overall the benefits listed most often by all professions dealt with acquiring skills in some phase of the systems approach. Ranking high on both tables was the fact that the participants were aware of the importance of working as a "team" to solve instructional problems. Other categories of the benefits were as follows:

1) positive attitudes
2) importance of media
3) importance of evaluation
4) improving competencies.

Table XVI

Personal or Professional Benefits Participants Feel They Gained As A Result of The I.D.I. Experience -Institutes I Through IV-

Ranking	Benefits	Prin.	Tchr.	Lib.	Spec.	C.A.	Total
1	The importance of, and the ability to work as a team	2	5	9	2	1	19
2	Specific skills, i.e. stating the problem, assessing needs, writing objectives, collecting data, organizing, construct prototypes, etc.		5	4	5	1	15
3	Competencies as a facilitator of learning	1	7	5	1		14
4	An over all knowledge of the systematic approach to problem solving	1	2	2		2	7
5	The need for a systematic approach to solving problems, etc.	1	3	1		1	6
6	A positive attitude toward educational problems/solutions, etc.			1		3	4
7	The need for techniques of evaluation		1	1	1		3
8	The need for, and the use of mass media in teaching		1	1			2
9	Additional post graduate credits						1
10	Skills in making instructional materials						1
11	Confidence in teaching adults as an I.D.I. Instructor			1			1

Table XVII

Personal or Professional Benefits Participants Feel They Gained As A Rseult Of The I.D.I. Experience -Institutes V Through X-

Ranking	Benefits	Prin.	Tchr.	Lib.	Spec.	C.A.	Total
1	An over all knowledge of the systematic approach to problem solving	7	12	8	3	3	33
2	Specific skills, i.e. stating the problem, assessing needs, writing objectives, collecting data, organizing, construct prototypes etc.	3	10	6	7	5	31
3	The importance of, and the ability to work as a team	8	16	3		3	30
4	Competencies as a facilitator of learning	6	9	3	1		19
5	A positive attitude toward educational problems/solutions etc.		4	2	1		7
6	The need for, and the use of mass media in teaching		4	2		1	7
7	A greater knowledge of resources available	2	3	1			6
8	The need for a systematic approach to solving problems, etc.		4				4
9	New terminology			2			2
10	The need for and techniques of evaluation	1					1
11	Additional post graduate credits			1			1
12	Suggested opportunities for staff development	1					1

SUMMARY AND CONCLUSIONS

Beginning with the Spring of 1973 through the school year 1973-74 a total of sixteen Instructional Development Institutes were held. A total of 781 instructional personnel attended these Institutes.

Participants from local schools attended as a school team of five members which included the principal or assistant principal, the librarian, two teachers and two other members of the staff usually chosen from among the counselor, specialist, and/or resource teacher. Throughout the Institute, as well as before and after the Institute, the necessity of the "Team" effort was stressed as one of the basic ingredients of the systems approach.

A main objective of the Instructional Development Institute was to provide the participants with initial skills and competencies in applying instructional systems principles in solving learning and instructional problems.

In their own ratings of skills and knowledges gained, participants said they had gained initial skills in enabling them to use the systems approach "To A Great Extent." Likewise, in a comparison of pretest scores, taken at the beginning of the Institutes, with posttest scores, taken at the end of the Institutes, gains shown when means differences were tested were significant at the .01 level of confidence. On this basis we rejected our first null hypothesis: the participants in the five-day Instructional Development Institute will not show significant gains in developing initial skills in the use of the systems approach to solving instructional problems as measured by the I.D.I. Pre-Post Inventory.

Only 48% of those responding from Insitutes I through IV (Spring 73) indicated that they were still functioning as a team. Reasons given were, 1) there was a lack of release time, 2) Institutes IV was made up almost entirely of Central Administration personnel, and 3) some members did not return to the school after the summer holidays due to transfers, retirement, etc. Ninety percent of the respondents from Institutes V through X indicated that their teams were still functioning. Over fifty percent of all teams stated that they had at least planned for the completion of the nine tasks basic to the systems approach to problem solving.

Even though minor, responses indicated that I.D.I. has had an effect on human relations in the schools and on the staff development activities. Responses also reveal that some impact was made on students in grade levels ranging from kindergarten through twelfth grade.

Participants indicated that they were using more media in their instructional strategies as a result of their experiences with I.D.I. In addition 73% of those responding said that they have used the skills acquired in the development of their instructional program. Last, but not least, participants listed personal and professional benefits as a result of I.D.I. Ranking first among these personal benefits was the awareness of the importance of working as a "team" to solve instructional problems. This was followed in order by: the acquiring of positive attitudes, the importance of media, the importance of evaluation, and improved professional competencies.

Based on the above facts we reject the second null hypothesis: that responses on the Instructional Development Institute Participants' Program Evaluation will not indicate; that the systems approach has been utilized; that teams have continued to work together; that participants feel more sense of self-improvement due to I.D.I.; nor that there has been a positive effect on the students of the participants.

IMPLICATIONS AND RECOMMENDATIONS

1. It is recommended that the follow-up course, Education 663F, be continued.

   All of the schools desiring to send a team to the Instructional Development Institute (Education 662F) were given the opportunity. The need now is for a continuous follow-up to aid those teams in the total completion of the final step in the program, mainly implement/recycle. To this end it is recommended that the follow-up course, Education 663F "Building An Instructional Prototype Model Using The Instructional Development System" be continued.

2. It is recommended that the Office of Staff Development establish a procedure whereby initial training in the systems approach can be given as the need arises.

   In the District of Columbia Public School System there continues to be a certain amount of mobility among school staffs. This is due to several reasons among which are transfers (either voluntarily, or as a result of the system's equalization plan), retirements and/or promotions. In many instances this has caused I.D.I. teams to lose members. Since the systems approach is based on a "team" effort it is recommended that the Office of Staff Development have periodic Institutes to train additional team members.

3. It is also recommended that a continuous follow-up evaluation be made of the effect of the Instructional Development Institute Program on students.

   Many staff development efforts end with the instructional personnel, that is, without causing any positive changes in the "students" for whom the schools are all about. The follow-up evaluation of I.D.I. should assess its effect on students' behaviors, attitudes and achievement.

APPENDIX A

Instructional Development Pre-Post Inventory

Instructional Development Pre-Post Inventory

Date _____ Institute No._____

PURPOSE: Your completion of this instrument will a ' greatly in the planning and evaluation of present and future Inst..utes.

Part I

Directions: Check the column which best indicates your skill and knowledge to perform the listed activities.

	Good working Knowledge	Some Knowledge	Not sure/ Undecided	Little or no Knowledge
1. Identify a problem by assessing needs, establishing priorities and writing a problem statement				
2. Analyze the setting by identifying the audience, analyzing existing conditions and determining available and needed resources				
3. Organize management by assigning tasks and responsibilities and establishing time lines				
4. Identify objectives by writing both terminal and enabling objectives				
5. Specify methods by constructing performance measures, determining instructional strategies and media forms, specifying alternatives and specifying designs for evaluation				
6. Construct prototypes by developing and collecting instructional materials, and constructing and collecting evaluation materials				
7. Test prototypes by carrying out instructions as planned and collecting evaluation data (tabulate and process)				
8. Analyze results by determining relationships between results and objectives, determining relationships between results and methods, and analyzing evaluation techniques (determine relevancy)				
9. Implement/Recycle by reviewing for indications and/or suggestions for revisions, deciding whether suggested revisions call for recycling or implementation and acting (implement or recycle)				

Part II

Directions: Circle the letter that indicates the best answer to each of the following ten statements.

1. A systematic way of analyzing instructional problems and developing tested, practical solutions:

   a. evaluate stage
   b. define stage
   c. instructional development process
   d. feedback
   e. assess needs

2. Returning to a previous function in the instructional development process whenever the data or other evidence indicates a revision or improvement necessary:

   a. analyze setting
   b. feedback
   c. evaluate stage
   d. input
   e. recycle

3. The following is an example of a Functional Factor:

   a. organize
   b. gatekeeper
   c. gestalt
   d. evaluate stage
   e. late adapter

4. The stage in the I.D. Process in which objectives are identified, methods specified and the prototype is designed and constructed:

   a. implement
   b. define
   c. develop
   d. evaluate
   e. assess

5. In the performance objective "the 7th grade science students who score below 70% on a pretest about pollution, will demonstrate their knowledge of pollutants by testing the emisions of an automobile to the satisfaction of their teacher."

The following elements are missing and/or stated incorrectly:

a. Audience and behavior
b. Behavior and condition
c. Condition and degree
d. Condition and evaluation
e. Behavior and degree

6. A communication activity which can occur anytime during the instructional development process where information from one function can be used to modify an earlier function:

a. feedback
b. organize
c. gestalt
d. implement
e. system approach

7. An objective which causes the student to be interested in an activity would be classified within which of the following domains?

a. cognitive
b. psychological
c. motivative
d. affective
e. psychomotor

8. A term describing data or information which may be used for decision making:

a. input
b. recycle
c. feedback
d. implementation
e. none of the above

9. "The student will be able to list the six major causes of bankruptcy" is a correct example of which of the following:

a. One of the planned outcomes of the team's valuation.
b. One of the performance objectives of the team's plan.
c. One of the strategies used in the team's objective.
d. One of the conditions used in the team's strategy.
e. One of the rationales for the team's course in Business Finance.

10. The collecting of data in the define stage from the individuals and groups involved to determine the nature of the problem; (that is to determine the difference between what is and what should be.)

    a. system
    b. feedback
    c. specify methods
    d. organize management
    e. needs assessment

Please check:

Did you also complete this Inventory during registration ?

Yes ____
No ____

1/15/74

APPENDIX B

Participants' Feedback Sheet

TODAY'S DATE: _____

Participants' Feedback Sheet*

As the Institute progresses you may develop certain feelings, ideas and concerns. You may want to express these as suggestions, constructive comments, criticisms and/or praise.

Feel free to use the feedback sheets at any time during the institute to share your candid thoughts with us. We hope that this effort will serve as encouragement to the staff as well as fruit for the improvement of the Institute.

Complete the statement(s)

1. Today

2. This week

3. My suggestion

Other(s)

4.

* Note: Drop this in the feedback box. Signatures are not required.

APPENDIX C

Instructional Development Institute
Participants' Program Evaluation

Instructional Development Institute
Participants' Program Evaluation

Your Position _____ Date _____

Staff development is an essential part of our educational program. Your candid response to this instrument will aid greatly in the assessment of the I.D.I. inservice training program. Thank you for your help.

Part I The Pre-Institute

1. How were the members of your team selected?

2. How were you selected? (If different from above)

3. Did your team receive any help or advice of any kind from I.D.I. prior to the five-day Institute? Yes ____ No ____
(If yes, please list type and kind of help and/or advice)

4. What pre-institute preparation(s) (other than team member selection) did your team undertake?.

   a. Were you advised of the total I.D.I. commitment(s) required of program participants? Yes ____ No ____

   b. Did your team make a commitment to fulfill the total I.D.I. commitment(s)? Yes ____ No ____ Don't Know ____

5. What problem area was selected or identified by your team?

6. List ways you think the pre-institute phase could be improved.

Part II

The Institute

1. What Institute did you attend? Institute number ____ or dates attended _____, 19 ___

2. In addition to the five-day Institute, did you attend either of the following? (If so, check)

____ Summer session (June 73)
____ Referee training
____ Instructor training
____ Other (Specify) _____

3. Indicate how many of each of the people in the following positions made up the team participating in the Institute (Underline team leader)

____ principal(s)
____ asst. principal(s)
____ resource teacher(s)
____ other(s)(specify position)
____ subject specialist(s)(subject area) ____
____ classroom teacher(s)
____ librarian(s)
_____

4. If you did not attend every session, check the day(s) and session(s) you missed during the five-day Institute.

First day	-	morning ____	afternoon ____
Second day	-	morning ____	afternoon ____
Third day	-	morning ____	afternoon ____
Fourth day	-	morning ____	afternoon ____
Fifth day	-	morning ____	afternoon ____

5. How would you rate the I.D.I. instructors as a whole?

	Excellent	Good	Fair	Poor
a. Preparation				
b. Presentation of materials				
c. Knowledge of materials				
d. Attitude				
e. Involvement with particpants				
f. Leadership				

6. As a result of I.D.I. rate the extent to which you gained initial skills enabling you to perform the following tasks in the systems approach to problem solving. Check one column for each numbered ( ) item.

	Totally	Great Extent	To A	To Some Extent	Not Sure	Not At All
I gained skills enabling me to:						
Define Stage						
a. Identify a problem by						
(1) assessing needs (status quo vs. ideal)						
(2) establishing priorities (propose tentative solutions)						
(3) writing a problem statement						
b. Analyze the setting by						
(1) identifying the audience (learner characteristics)						
(2) analyzing existing conditions						
(3) determining resources available, needed						
c. Organize management by						
(1) assigning tasks to team members						
(2) assigning responsibilities						
(3) establishing time lines (schedules, etc.)						
Develop State						
d. Identify objectives by						
(1) writing terminal objectives						
(2) writing enabling objectives						
e. Specify methods by						
(1) constructing performances measures						
(2) determining instructional strategies						
(3) determining media forms						
(4) specifying alternatives						
(5) specifying design(s) for evaluation						
f. Construct prototypes by						
(1) developing and collecting instructional materials						
(2) constructing and collecting evaluation materials						
Evaluation Stage						
g. Test prototypes by						
(1) carrying out instructions as planned (tryouts)						
(2) collecting evaluation data (tabulate and process						
h. Analyze results by						
(1) determining relationships between results and objectives						
(2) determining relationships between results and methods						
(3) analyzing evaluation techniques (determine relevancy)						
i. Implement/Recycle by						
(1) reviewing for indications and/or suggestions for revisions						
(2) deciding whether suggested revisions calls for recycling or implementation without major revision						
(3) acting (implement or recycle)						

7. Did your I.D.I. team function as a group?

   a. at the beginning of the Institute? Yes ____ Somewhat ____ No ____
   b. by the end of the Institute? Yes ____ Somewhat ____ No ____

Part III Post-Institute

1. Did other persons at your school express a desire to join the team?
   Yes ___ (how many?) ____ No ____

2. Has the composition of your original I.D.I. team changed?
   Yes ____ No ____ (If yes, explain how)

3. Did the team (or is it now) continuing to function as a group?
   Yes ____ No ____ (If no, explain why)

4. Indicate approximately the amount of planning time you have spent with your team in instructional development since the five-day Institute?

   a. During the school day (9-3:15) number of meetings ____ total hours ____
   b. Outside of the school day number of meetings ____ total hours ____
   c. If you have not met, please explain.

5. Rank the tasks listed below as to the one(s) you feel your team has most thoroughly developed by numbering them 1 through 9 with the number 1 indicating the most developed (when ranking leave blank those tasks not yet developed). Indicate the approximate date of completion or date of expected completion of each task.

Rank		Date of Completion	Expected date of Completion
____	Identified Problem	____	____
____	Analyzed Setting	____	____
____	Organized Management	____	____
____	Identified Objectives	____	____
____	Specified Methods	____	____
____	Constructed Prototypes	____	____
____	Tested Prototypes	____	____
____	Analyzed Results	____	____
____	Implemented/Recycled	____	____

6. If you feel that there is a problem (such as: the I.D.I. method, I.D.I. staff help, building administration, central administration, subject department, scheduling, resources, facilities, team effort, apathy) or any other reason why any task has not been completed, please explain.

Tasks	Explanations (problem(s)/reasons)

7. What help from what source(s) do you feel is needed at this time to enable your team to progress further re: items 5 and 6?

8. Write your finalized problem statement.

9. What would you say are the three greatest strengths of your team?

1.
2.
3.

10. What would you say have been the three major problems encountered by your team?

1.
2.
3.

11. What would you say have been the three greatest strengths of your school in support of your teams' development of your prototype?

1.
2.
3.

12. Have human relations in the school been improved as a result of your team's experience? Yes ____ No ____ Don't Know ____

13. Has I.D.I. played a role in improving the school's staff development activities? Yes ____ No ____

14. Indicate the degree to which you think the I.D.I. experience has had a positive effect on the children in your school to date.

EFFECT	Degree					The Children		
Type or kind	Total	Great	Some	Very Little		Level(s)	Grade	Total Number

15. As a result of I.D.I. have you integrated more media into your instructional strategies? Yes ____ No ____

16. As a result of I.D.I. have you used the skills of the systematic approach in the development of your instructional program? Yes ____ No ____

17. What personal or professional benefits do you feel you have gained as a result of the I.D.I. experience (List)

Prepared by
Office of Planning, Research and Evaluation
12/73

APPENDIX D

Instructional Development System

INSTRUCTIONAL DEVELOPMENT SYSTEM

STAGE I: DEFINE

FUNCTION 1:

IDENTIFY PROBLEM

- Assess Needs.
- Establish Priorities
- State Problem

FUNCTION 2:

ANALYZE SETTING

- Audience
- Conditions
- Relevant Resources

FUNCTION 3:

ORGANIZE MANAGEMENT

- Tasks
- Responsibilities
- Time Lines

STAGE II: DEVELOP

FUNCTION 4:

IDENTIFY OBJECTIVES

- Terminal
- Enabling

FUNCTION 5:

SPECIFY METHODS

- Learning
- Instruction
- Media

FUNCTION 6:

CONSTRUCT PROTOTYPES

- Instructional Materials
- Evaluation Materials

STAGE III: EVALUATE

FUNCTION 7:

TEST PROTOTYPES

- Conduct Tryouts
- Collect Evaluation Data

FUNCTION 8:

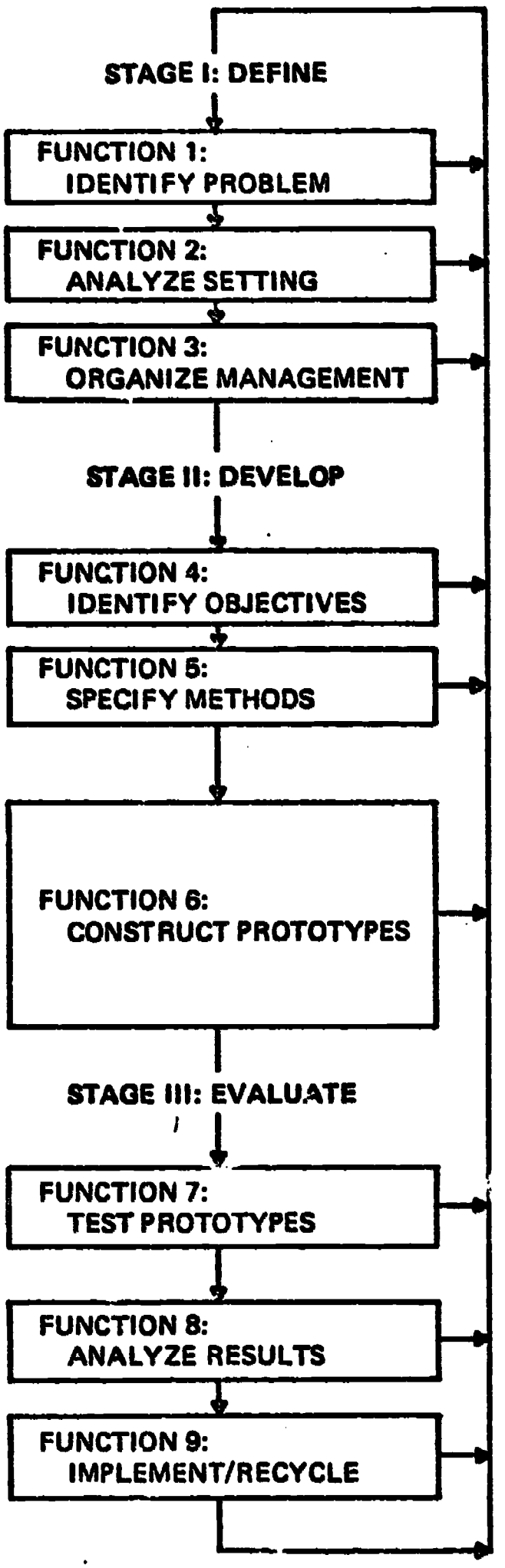
ANALYZE RESULTS

- Objectives
- Methods
- Evaluation Techniques

FUNCTION 9:

IMPLEMENT/RECYCLE

- Review
- Decide
- Act



Decision Points

a. Compare *status quo* to *ideal*
b. Propose tentative solution(s)

c. Determine learner characteristics
d. Inventory school/community resources

e. Assign TABS team responsibilities
f. Establish lines of communication
g. Specify project planning and control procedures

h. State terminal performance objectives
i. State enabling objectives and determine relationships between objectives
j. Construct performance measures
k. Specify instructional strategies and media forms
l. Specify alternative methods
m. Prepare comprehensive description of instructional design specifications
n. Specify design for evaluation of instructional and evaluation designs
o. Conduct technical review of instructional and evaluation designs
p. Specify procedures for collection and development of instructional materials
q. Construct and assemble instructional materials
r. Specify procedures to be used by personnel during tryout of instructional prototype

s. Carry out instruction as planned
t. Carry out evaluation as planned
u. Tabulate and process evaluation

v. Determine relationships between results, methods, objectives and goals

w. Indicate what kinds of revisions (if any) are suggested by the interpretation of results, methods, objectives and goals
x. Determine if suggested revisions indicate that the prototype is to be recycled or if the design can be implemented without major revisions.

APPENDIX E

Schedule of Institutes

SCHEDULE OF I.D.I. INSTITUTES

	Institutes Number	Dates	
Spring 1973	I	March 5-9, 1973	
	II	March 26-30, 1973	
	III	April 9-13, 1973	
	IV	May 14-18, 1973	
School Year 1973-74	V	September 26-October 2, 1973	*
	VI	November 5-9, 1973	
	VII	November 12-16, 1973	
	VIII	December 5-11, 1973	*
	IX	January 9-15, 1974	*
	X	January 23-29, 1974	*
	XI	February 6-12, 1974	*
	XII	February 20-26, 1974	*
	XIII	March 13-19, 1974	*
	XIV	March 27- April 2, 1974	*
	XV	April 24-30, 1974	*
	XVI	May 8-14, 1974	*

Key:

- Inclusive of all school days between dates shown

* Institute week split between two calendar weeks

APPENDIX F

Application Form

APPLICATION FOR ENROLLMENT IN THE INSTRUCTIONAL DEVELOPMENT INSTITUTE

RETURN TO: I.D.I. CENTER
CARVER SCHOOL, 3RD FLOOR
45TH & LEE STREETS, N.E.
WASHINGTON, D.C. 20019
(MAIL ROUTE NUMBER 4)

NO LATER THAN CLOSE OF BUSINESS ON _____.

SCHOOL _____ PHONE _____

TEAM COORDINATOR* _____ ROUTE NO. _____

HOME ADDRESS _____ HOME PHONE _____

A. TEAM MEMBERS

	Name & Social Security No.	Grade/ Subject	Home Address	Phone Number
1. Teacher				
2. Teacher				
3. Librarian				
4. Principal/ Asst. Principal				
5. Resource Person				

(*i.e., resource teacher, supervisor, counselor, department chairman, school-based teacher, subject specialist, parent, or student (secondary) representative.)

B. INSTRUCTIONAL/LEARNING PROBLEM AREA (State the critical problem identified by the team)

_____

_____

_____

_____

_____

*Team coordinator may be any member of the team.

OSD/801/73

APPENDIX G

List of Schools, Institutes Attended and Problem Areas Submitted

Schools Served by The
Instructional Development Institute
Spring 1973-Spring-1974

Elementary Schools	Institutes	Problem Areas
1. Amidon	VII	Work and study habits
2. Anacostia Pre-Sch.	XI XIV	
3. Bancroft	VIII	Written language skills
4. Barnard	I	Comprehension skills
5. Beers	XI	
6. Benning	X	Reading comprehension
7. Bowen	XIV	
8. Brent	XIII	
9. Brightwood	VIII	Recreational reading
10. Brookland	VII	Problem solving skills
11. Bryan	X	Designing relevant reading content
12. Buchanan	X	Reading comprehension
13. Burroughs	IX	Auditory and perception
14. Carver	IX	Reading stations in Open School environment
15. Clark	VII	Listening skills
16. Congress Heights	V	Listening skills
17. Cooke, H.D.	XIII	
18. Draper	IV	Following direction-
19. Eaton	III	Comprehension skills
20. Edmonds-Peabody	VI IX	Mathematics Reading comprehension
21. Emery	IX	Reading in content areas

(cont.)

Elementary Schools	Institutes	Problem Areas
22. Friendship	XI XVI	
23. Garfield	XV	
24. Garrison	III	Alphabetizing skills
25. Goding	VI XVI	Independent work habits
26. Harris	I XV	Reading in content areas
27. Houston	XI	
28. Kenilworth	XI	
29. Ketcham	V	Word attack skills
30. Kimball	V	Computation skills
31. Lafayette	XIII	
32. Langdon	XIV	
33. LaSalle	XIV	
34. Leckie	VIII	Pre-reading skills
35. Logan	VI	Word attack skills
36. Lovejoy	III	Comprehension skills
37. Ludlow-Taylor	VI	Listening skills
38. Malcolm-X	XII XIII XV	
39. Mann	VII	Visual perception skills
40. Maury	X	Following directions
41. Merritt	XVI	
42. Meyer	III	Word attack skills

(cont.)

Elementary Schools	Institutes	Problem Areas
43. Miner	IX	Practical math skills
44. Montgomery	I	Individual instruction
45. Morgan	XIII	
46. Moten	II XII	Word attack skills
47. Mott	XVI	
48. Nalle	X XIV	Reading comprehension
49. Noyes	IX	Phonic attack skills
50. Orr	XV	
51. Park View	XIII XVI	
52. Payne	II	Time concepts
53. Plummer	X	Reading comprehension skills
54. Powell	IV	Comprehension skills
55. Randle Highlands	XII	
56. Richardson	XII	
57. Rudolph	VIII	Oral and written skills
58. Shadd	I	Comprehension skills
59. Shaed	IX	
60. Simmons	VI	Word attack skills
61. Simon	VI	Time concepts
62. Sixteenth & Butler	V	Comprehension skills
63. Slowe	XIII	
64. Smothers	III	Comprehension skills
65. Stanton	I	Comprehension skills

(Cont.)

Elementary Schools	Institutes	Problem Areas
66. Stevens	VII	Problem solving-Math
67. Tubman	II XI	Sight vocabulary
68. Van Ness	XIII	
69. Walker-Jones	VI XV	Follow directions
70. Watkins	X XI	Low level of self image
71. Webb	VI	Dictionary skills
72. Wheatley	I XII XVI	Use of instructional media
73. Whittier	VIII	Visual discrimination
74. Wilson	VI XVI	Computation skills
75. Woodridge	II	Comprehension skills
76. Young	IX	Reading in content areas

Junior High Schools

1. Backus	III	Word attack skills
2. Browne	IV	Career development
3. Deal	I	Fundamental operations-math
4. Douglass	XIII	
5. Eliot	I	Word attack skills
6. Francis	VII	Visual perception skills
7. Garnet-Patterson	XIII	
8. Gordon	XII XV	

(cont.)

Elementary Schools	Institutes	Problem Areas
9. Hamilton	IX	Reading in content areas
10. Hart	I	Consumer mathematics
11. Jefferson	XII XIV	
12. Johnson	II	Consumer mathematics
13. Langley	II	Sustained silent reading
14. Lincoln	VIII	Study skills
15. MacFarland	II	Individualized math
16. Paul	VII VIII	Reading comprehension skills Reading comprehension
17. Randall	III	Comprehension skills
18. Shaw	XIV XV	
19. Sousa	V VIII	Program w/learning differences Metric system
20. Stuart	IV	Word attack skills
21. Taft	XII XV XVI	
22. Terrell	VII XII	Reading in content area

Senior High Schools		
1. Ballou	XV	
2. Cardozo	II	Listening skills
3. Dunbar	III XVI	Critical reading skills
4. Eastern	XIV	
5. McKinley	I XIII XV	Individualized reading

(cont.)

Senior High Schools	Institutes	Problem Areas
6. Roosevelt	III	Reading in content areas
7. Wilson	XVI	
8. Woodson	V	Survival reading skills
Special Education Schools		
1. Pierce	III	Consumer mathematics
2. Sharpe Health	IV	Occupation for handicapped students
Vocational Schools		
1. M.M. Washington	II	Practical math